NARENDRA DABHOLKAR

TRANSLATED BY JAI VIPRA

PRACTICAL LESSONS IN DEVELOPING A SCIENTIFIC TEMPER

PLEASE THINK

NARENDRA DABHOLKAR was a rationalist, author and activist from Maharashtra. A trained medical doctor, he founded and was president of the Andhashraddha Nirmoolan Samiti. Through his writings and speeches, he emphasised the role of rational thinking. He was murdered on 20 August 2013, and triggered by his death, the long-pending Anti-Superstition and Black Magic Ordinance was promulgated in Maharashtra four days later. He was posthumously awarded the Padma Shri in 2014.

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DR NARENDRA DABHOLKAR

Translated by Jai Vipra

First published in Marathi as *Vichar Tar Karal?* by Rajhans Prakashan in 1994

First published in English by Context, an imprint of Westland Publications Private Limited, in 2019
1st Floor, A Block, East Wing, Plot No. 40, SP Infocity, Dr MGR Salai, Perungudi, Kandanchavadi, Chennai 600096

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ISBN: 9789388754026

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To dear Mukta and Hamid,
For carrying on the legacy of rational action.
Yours,
Dad

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Preface

This is my fourth book on the eradication of superstition.

In my first book, *Delusions and Dispelling Them* (*Bhram ani Niras*), I talk about many issues related to superstition. In the second book, *Superstitions: Question Marks and Full Stops* (*Andhashraddha: Prashnachinha va Purnaviram*), I discuss the common questions people have about this issue. The third book, *The Destruction of Superstition* (*Andhashraddha Vinashaya*), is about the actual experience of the anti-superstition movement.

My fourth attempt, *Please Think* (*Vichar Tar Karal?*), is slightly different.

We are frequently confronted by incidents that are directly or indirectly related to superstition. We observe them, are fascinated by them. Sometimes, we brand them as occult phenomena. At other times, we assume that they must be caused by something beyond science and bow down before them. We are not in the habit of thinking about them critically or looking for the truth. Our attitude in these situations is one of fear, ignorance and laziness, or of 'why should I care'. Because of this tendency, we may not even notice a grave wrong playing out in our vicinity, forget opposing or countering it.

I wrote a series of articles about such incidents in the *Dainik Pudhari* and *Dainik Lokmat* (the Marathwada, Nagpur and Jalgaon editions). Although I realised that people were seeing the point I was making, I stopped writing amidst the hubbub of the movement and its work. I later refined and reworked some of the articles in the series, and wrote some more pieces about our experiences as part of the movement. The common thread was a reflection on real events. Several members of the movement provided valuable assistance for these writings.

However, I began to understand that this was not enough for readers. The scientific temper that the movement and I insist must be employed is a way of thinking that has evolved in the

world over the past 400 years. In the many tens of thousands of years that humans have inhabited the earth, this was unprecedented. I, therefore, seek to explore and elaborate on a way of thinking that is a fundamental shift in human history.

When one starts thinking, especially about faith and superstition, religion, with its peculiarities and limitations, makes its presence known. The movement's stance on religion is a little different from its position on superstition. Many people feel we are out to destroy religion. Others feel we don't do enough to destroy religion, that we hold back. This is why it was important to clarify our stance, and so the chapter titled 'Religious Inquiry and Rationalism' was included.

Naturally, several people have contributed to this book through their writing and discussions. I have not provided details of all these influences. But I consider it my duty to thank here Bertrand Russell, D.K. Bedekar, P.G. Sahastrabuddhe, Jayant Narlikar, Professor M.P. Rege, G.M. Pawar, P.R. Arde, Prakash Burute, Professor N.V. Kogekar, Shantaram Garud, Arun Tikekar, Dr Vidyadhar Borkar, Dr Shrikant Joshi, Dr N.Y. Dole, V.G. Kulkarni, Sharad Abhyankar and Suniti S.R.

Many thanks to Rajhans Prakashan for their usual kindness.

Scientific Temper

Science is progressing at a breakneck speed. From investigating the depths of subatomic particles to exploring the expanses of the universe, scientific studies have had a range of stunning impacts on our lives. Medicine, agriculture and communication are just some of the fields that testify to the degree to which we can harness nature for our own benefit. Information technology has made the world a much smaller place and agricultural technology, including pesticides and high-yielding variety seeds, has made the end of hunger a possible goal for the first time in the history of the world.

Our top priority, therefore, ought to be an excellent education in science for our students—not only so that they make skilled scientists and technicians, but also so that faith in science can be instilled in the people.

It was once believed that, with technology changing the face of the world, superstition would die a quiet death. However, that has not happened. People today, whether rich or poor, old or young, are even proud of their lack of scientific temper.

Many people are still living in the clutches of superstition. They spend hours at crematoriums, waiting for a crow to signal freedom for a loved one's soul. They see omens everywhere, from the breaking of glass to the falling of stones. Why do prime ministers and presidents pay their respects to a fraudulent godman? Why do people toss perfectly good food into sacrificial fires? Why do they still oppose widow remarriage in the name of caste? What does this downfall of scientific temper and reason tell us?

People fall prey to superstition because they are in constant need of external support. It is natural for the exploited to turn to the deceptive aid or solace of superstition. Yet, the end of superstition is not guaranteed by the end of misery, because we also turn to superstition to fulfil our greed. This makes it a never-

ending affliction. Hubris, and the fact that people have never considered the scientific merit of their rituals, blinds them to the futility of superstitious beliefs. They convince themselves with the usual maxim: 'There must be something to it.'

The history of all scientific inquiry is that of attempting to understand what we previously couldn't. Early man watched nature, astounded. He was incapable of comprehending phenomena such as roaring thunder, blinding lightning, pouring rain, vicious forest fires and devastating storms. These were formidable powers, and human well-being appeared to depend on appeasing these powers. This is why the 'five elements' were given so much importance in our history. Man was, in a sense, the weakest creature on earth as he battled the elements. He lacked the ability to fly, to survive underwater and in extreme cold. He lacked the strength of the rhinoceros and the agility of the deer. Yet he became the de facto ruler of the world—how?

While other creatures adjust to nature, man lords over it, because knowledge is exclusive to humans. Our brains, which developed along with our opposable thumbs, allowed us to grab things, manipulate them and fashion them into tools. We gained these abilities over thousands of generations. Not only did man acquire knowledge, he also transferred it to subsequent generations through language, making use of his evolved larynx and oral cavity.

Man is faced with thousands of questions in his quest for knowledge: Why are the seas and sky blue? Where do butterflies get their colours from? What causes high and low tides? How many stars can we count with the naked eye? Why does the sun appear larger during sunrise and sunset? Why do fireflies glow at night? Why do mosquitoes hum? What are stainless steel and plastic? The love for knowledge is born of curiosity, and quelling curiosity makes humans happy.

Science, simply, is the practice of knowledge, the search for knowledge. The word 'science' is derived from the Latin *scientia,* derived from *scire* , which means 'to know'. The origins of scientific thinking and practice can be found in human intelligence and the practical know-how and skills that are transferred from one generation to the next as civilisation grows.

For nearly a hundred thousand years after he appeared on earth, man was but another animal. He lived in caves, gathered

and hunted for food, and clothed himself in hide and bark. Around eight thousand years ago, the practice of agriculture began and brought with it stability. Primeval ideas about the world, and about the unknown powers that govern the working of the world, also began taking shape at this time.

Man often got it wrong. He beat his drum during eclipses, expecting the sound to chase away the demon who had come to swallow the sun. Thunder was much louder than his stone mill, so he reasoned that someone in the sky was grinding grain in a very large stone mill. Lightning looked like the crack of a charioteer's whip; naturally, he reasoned that Indra's chariot was traversing the skies. When sudden madness gripped someone, he assumed that a demonic power had taken control of that person. Mistakes are always made in the pursuit of any kind of knowledge; indeed, they are inevitable for attaining perfection. It was difficult for man to see or reason differently, with the extremely limited information at his disposal.

In addition to curiosity, necessity also promoted the acquisition of knowledge. The stars were studied because their positions helped determine the farming calendar. In Egypt, people noticed that when certain stars shone in a certain part of the sky, the Nile would flood. This observation helped them predict the floods and plan their farming. Botany developed in pursuit of medicine and chemistry evolved from alchemy.

In India, in the third and fourth centuries AD , the science of chemistry made rapid strides with the growing popularity of works such as Nagarjun's *Rasaratnakar* and *Kalkaputatannam* . The famous chemist described the compounds that could be created from sulphur, mercury, copper, silver and gold. Interestingly, these treatises also contain descriptions of magic and miracles. The renowned astronomer Varahamihira also lived during this time. His work, the *Bruhat Samhita* , contains information about the sun and the planets. In the same period, the lexicographer Amar Singh observed the characteristics and reproductive patterns of various species of plants and animals, and attempted to classify them. The concept of zero was developed in India. The works of Aryabhatta and Bhaskaracharya propounded important theories in mathematics and astronomy. However, from the eighth century onwards, the figure of the 'guru' became more influential in Indian society, and blind faith

in the authority of the guru diminished our tendency to acquire knowledge.

Let us revisit the dichotomy between artisans and technicians. One of the hurdles that scientific progress faced was that the artisans, although skilled observers, lacked the training in formal logical thought that was available to the technicians. The other was that man's understanding of natural phenomena was shaky at best, and often muddied by preconceived notions.

Before the fifteenth century, in India and the West, science was dependent on the patronage of royalty and religious institutions. This not only stunted scientific progress but also created several misconceptions about nature in society—for instance, the notion that the earth is at the centre of the universe. Or, the notion that God created man. Science, in those days, supported the idea that the sun and the moon were created for man's benefit. In Europe, it struggled to corroborate the teachings of the church and the Bible on the one hand and the church-approved works of Aristotle on the other. This led to various intellectual gymnastics within the discipline. Aristotle talks about the final cause as distinct from the efficient cause of every action, the final cause being the intention. In many ways, the final cause of scientific analysis in those times was the desire to align with the views of the church.

It is believed that the scientific temper as we know it today originated in Europe in the sixteenth century. The evolution of the scientific method is but one aspect of the history of science. A rather more important aspect is the raising of fearless challenges to the establishment at the peril of one's life. This started much earlier, in 399 AD , when Socrates was prosecuted in Athens. He was accused of not believing in the gods the whole country believed in, and leading the youth away from traditional values. It was not that Socrates did not believe in the gods, but he believed that no one ought to accept any principle, even the existence of deity, without subjecting it to reason. He argued that laws and policies ought to be formulated on the basis of historical and sociological experience. The establishment found this alarming because it was inevitable that faith in the existing laws would dwindle after they were subjected to reason. Socrates was dragged to court and sentenced to death by poisoning.

In societies where people have taken a stand against the

establishment to defend their reasoned ideas, the plague of superstition has receded and the doors of scientific progress have opened. Socrates started the tradition of courting death in order to uphold one's rational views. This tradition subsequently disappeared for a few centuries, and with it, Europe's progress stalled. World history shows us that the more individuals are allowed to think, reason and acquire knowledge freely, the more society progresses. When independent thinking and research dies, society goes through a dark age. This is what transpired in Europe between the fourth and thirteenth centuries.

The willingness to die for reason, in the cause of the scientific temper, resurfaced in Europe seven hundred years ago, and with it came the dawn of the Renaissance. That struggle, however, was morbid and short-lived. Roger Bacon (1214–1294) pledged that he would not die before he had conducted experiments based on Aristotle's theories. He preached that the truth would not be found in the holy books or superstitious beliefs, but through the use of intelligence, experience, deliberation and experimentation. Since he was a friar of the Franciscan order, the members of his order sentenced him to house arrest. Although he was not put to death, the man who wanted to enlighten the world with knowledge spent the rest of his life in darkness. In India, in over two thousand years after the Charvakas and the Buddha, and before the advent of Western thought, the clarion call 'Please Think', putting the caller's very life at risk, was not raised. Skills and knowledge transferred through tradition started drying up and no one mourned them. Questions of when it was proper to eat onions, whether vermilion paste ought to be applied horizontally or vertically, and whether cow urine could salvage one's soul, dominated the discourse.

These futile pursuits left the common man outside the sphere of any meaningful progress. We could only boast of some great kings and a few texts on philosophy during this period. Meanwhile, Galileo's telescope was taking Europe by storm.

Galileo's invention provided a strong confirmation of Copernicus's views. The latter had brought the geocentric assertions of the holy books into question and was examining Aristotle's views on astronomy. Copernicus knew that to support his theory of a heliocentric universe, he would have to show that

Venus had phases like the moon. His inability to prove this had pitted the scientific world against him. Galileo's telescope provided proof of this phenomenon, and also proved that the moon had hills and the sun had spots. People found these revelations shocking and the religious leaders were terrified. To accept Galileo's revelations would entail accepting flaws in the work of the Creator. Teachers in Catholic institutions of learning were forbidden to mention the spots on the sun, a ban that was in force in some universities for many centuries. The clergy were pressurised to excommunicate mathematicians because it was believed that geometry was the devil's science and mathematicians were heretics. A committee of theologians discussed the subject of astronomy and deduced two conclusions from certain passages in the Bible: 'The notion that the sun is stationary and does not revolve around the earth is absolutely wrong and openly challenges the Holy Scripture. The notion that the earth revolves around the sun is preposterous and contrary to the religious view.'

Then the Pope ordered Galileo to depose before the Roman Catholic Inquisition. The Inquisition ordered him to renounce his assertions. On 23 February 1616, Galileo pledged in writing that he would not support the Copernican view of the universe, and was granted freedom. After this, all books which proclaimed that the earth moved, were banned.

And yet, Galileo was hopeful. In 1623, his friend Cardinal Barberini became Pope Urban VIII. Feeling slightly more secure, Galileo started writing a book called *Dialogue Concerning the Two Chief World Systems* . Technically, the book did not side with either Ptolemy's or Copernicus's view, but the way it was written provided passionate endorsement to the latter. This exquisite book was read widely and enthusiastically all over Europe.

The religious leaders were agitated once again. Galileo was again ordered to appear before the Inquisition. He pleaded that he could not travel from Florence to Rome owing to illness but the Pope threatened to send his own doctor and bring him to Rome in chains. Galileo then made his way to Rome on his own. He was told that if he confessed to his crimes and repented, he would be subjected to three years' imprisonment during which he would be asked to repeat a certain prayer of repentance every week.

Because this softer punishment would be meted out only if he confessed, Galileo fell to his knees in front of the Inquisition and repeated what they wanted him to say: ‘I renounce these mistakes and incorrect views. I believe they are abhorrent and pledge that I will write or speak nothing that may hold me suspect of heresy. If I find any heretic declaring that the earth is mobile, I will condemn him in front of the Inquisition.’ Later, the Inquisition generously commuted his sentence from formal imprisonment to house arrest. All his movements were restricted. He was not permitted to meet his family and friends. He slowly went blind and died in 1642.

Eventually, however, the age of science did dawn. The scientific method came to be known as the only effective and appropriate way to acquire knowledge. No one claims that it solves all problems swiftly. Nevertheless, the scientific method helps us pinpoint causation and formulate questions, and maximises the possibility of finding tomorrow the answers that we did not find today, of staying on track in the pursuit of truth.

Today, it is as if teaching science, using technology and thinking scientifically are all mutually exclusive. Even people with degrees in the sciences exhibit unscientific thinking, some even using their knowledge of science to spread unscientific thinking.

The practice of thinking logically about natural phenomena, and appending experience and experimentation to this thinking, began in the thirteenth century. Science is synonymous with the use of an exact process assisted by observation and logic. Some people call science ‘specialised knowledge’ but knowledge itself is defined as information acquired through logically sound means and conclusions derived from such information. In science, reasoning and experimentation are interdependent: reason is subjected to the test of experimentation, firm conclusions are drawn, and laws are derived.

There are many different ways of looking at the questions of the universe, its creation and growth, and the place of human beings in the universe. They can be classified into those that are based on what is and can be known, and those that are not. Scientific thinking falls under the former category. Materialism and other worldly philosophies are also propounded on this basis. On the other hand, spiritualism and theology, with their

ideas of godliness and divinity, are philosophies derived from the latter category. Social norms and teaching methods today are also influenced by this category.

Building scientific temper and dispelling superstition involves improving one's ability to make sense of what one experiences. Making sense of experience does not mean understanding experience totally, but untangling our intertwined and often muddied experiences to understand their essence. For instance, if we throw a stone and a feather from the same height, the stone falls faster than the feather. However, if we remove the wind from the equation, both will fall at the same pace. The exceptional ability to understand this is present in very few people. But the knowledge that is limited to a talented few today becomes common knowledge tomorrow. This is the value of scientific thinking.

There are some skills which are unique to humans: digging into our vast experience and making sense of it, representing these insights mathematically and using these formulae to acquire new knowledge. With the help of these tools, knowledge can be disseminated. And scientific temper is of fundamental importance to the acquisition and transfer of knowledge.

The Parliament of India passed the Scientific Policy Resolution in March 1958, a document inspired by the then Prime Minister Jawaharlal Nehru. These were the salient parts:

> It is only through the scientific approach and method and the use of scientific knowledge that amenities can be provided to every member of the community[…]Science has led to the growth and diffusion of culture to an extent never possible before[…]it has provided new tools of thought and has extended man's mental horizon. It has thus influenced even the basic values of life, and has given to society a new vitality and a new dynamism.

In 1975, an Indira Gandhi-led Parliament amended the Constitution to add the fundamental duties of Indian citizens. 'To develop scientific temper, humanism and the spirit of inquiry and reform' is now a fundamental duty. In 1987, Rajiv Gandhi's education policy laid great emphasis on the development of

scientific temper.

However, it is important to be aware that science is not magic. To say that all questions will be answered by science is to replace God with science. Only people can solve problems. Scientific thinking shows us the appropriate way to solve them. Apart from this, we must remember that making science popular and inculcating scientific temper are separate challenges. For instance, it is beneficial to increase the use of solar energy in our daily lives, but inaugurating the installation of solar energy equipment with rituals using lemons or by cracking open a coconut is inimical to scientific temper. However, making science popular can also be a way to inculcate scientific temper.

Religious faith might be an inherent characteristic of man, but so is critical thinking. For instance, people use this faculty while making business decisions. Businesses fail if all factors are not considered carefully. Scientific thinking is the same careful consideration, when it is used to understand what an incident means, what the different elements in nature are, or what the rules governing various phenomena are. Naturally, these rules are not discernible simply by observing elements and phenomena as they are. It takes a superior level of imagination and intelligence to discern these rules. When a talented scientist proposes her theory, she provides the proof on which it is based and the logical reasoning from which the theory takes shape. To disprove such a theory, one has to show that either the proof or the reasoning is faulty. Else the theory is accepted as true. This is why even religious faith begins to support established scientific theories. When scientific thinking and knowledge gained ground in Europe, religion was not destabilised or made irrelevant. The religious and scientific worlds converged as religion moved closer to science. Elements and phenomena observable by man, and the rules governing them, are in the domain of science. There lies no scope for religion there.

Here are some characteristics of scientific temper:

1) Believing something simply because someone with authority has said it, or because it has been written in a book, is wrong. The ultimate test of truth is observable proof or examination. Adishankaracharya pointed out that we cannot believe fire is cool no matter who says it, in any

number of books. In Europe, this is the principal difference between medieval thinking and modern scientific thinking. For medieval philosophers, the Bible, the writings of priests and even the views of Aristotle were beyond dispute. These people and these books, with their logic and arguments, had drawn impermeable intellectual borders. One could not cross these borders even in the pursuit of truth. The real tussle between religion and science was that of the primacy of words and books versus the primacy of observation and examination. This method of knowing was accessible to anyone who was prepared to perform the necessary observations and experiments. This new method had so much success that religion soon had to struggle for ground against science.

2) The world is governed by certain rules, and its existence is not due to any external power. The questions of the universe can be answered by analysing the elements present in it, and man is capable of such analysis. Galileo's telescope and subsequent discoveries not only added to knowledge, but changed our conception of the world to that of a machine. Instead of trying to solve the ultimate question, science began to solve many smaller questions more and more accurately. Man had long believed that there were rules governing the world, but it took Galileo's work and scientific temper to understand that these rules were material, not spiritual.

3) The earth is not the centre of the universe. The world was not created for man; indeed, there is no reason for the world to have any purpose at all. Everything happens due to factors internal—and not external—to the universe.

4) Superior knowledge is gained through consistent thought and intelligence, not through revelations. One disadvantage of a society that believes in revealed knowledge is that its intellectuals stop valuing scientific and objective ways of acquiring knowledge. Another effect is inimical to democracy; it creates two classes—those who are knowledgeable and those who aren't. As revealed knowledge is not accessible to everyone, the have-nots are kept subordinate to the haves, for knowledge becomes the prerogative of the privileged.

5) Unknown powers cannot make anything happen. If there is even a single exception to what ought to be scientific truth, the whole edifice collapses like a house of cards. A ring appearing in Satya Sai Baba's hand is an unscientific incident because there is overwhelming evidence to the contrary, backed by knowledge. Godmen like Satya Sai Baba will have to furnish explanations for these powers.
6) Science is public. Scientific truth is available to all. Anyone who is curious about this truth can test it. Scientific temper is opposed to dogmatism. Dogma is personal; it is inaccessible and untestable.
7) Science is always humble. It never lays claim to the final word. It is religion that asserts, 'I have understood it all, I have figured the universe out, now do as I say.' Science believes in testing objects and incidents, and searching tirelessly for solutions to unsolved problems. Scientists are not to be praised for being right; they are to be praised for trying to state principles rigorously and thoroughly. Science remains objective even while it extends or overturns the work of its own giants. For instance, Einstein could finish Newton's unfinished work or disprove it; Newton does not object to this. If, tomorrow, someone else points out the limitations in the work of both Einstein and Newton, it does not mean they are insulted. Anyone is permitted to test their propositions. All scientific theories are open to challenge. No matter how much progress is made in the realm of science, there are always new questions to answer, new horizons to chase.

It is worth reflecting on the history of Newton's theories of motion and gravitation through this lens. Many decades after Newton's theories found acceptance, astronomers were faced with a puzzling issue: Uranus's orbit around the sun did not conform with Newton's theories. This meant there were three possibilities: a) the theories were wrong, b) the orbit had not been observed accurately, or c) both the theory and the observations were valid, but there were other factors affecting the orbit. It was difficult to assert that the theories were wrong, as they had been validated by observations through many years. Then an English scientist, John Adams, and Urbain Le Verrier of

France, both independently proposed that there was another planet near Uranus whose gravity affected its orbit. This planet, when located, was named Neptune.

The discovery of Neptune strengthened Newton's theories but astronomers were soon faced with another problem. Discrepancies were observed in the orbit of Mercury, which Newtonian mechanics could not fully explain, and Le Verrier proposed the existence of yet another planet that could be causing these disturbances. This planet, named Vulcan, was never found. It now appeared that Newton had been wrong. But if Newton's laws were inaccurate, what was the explanation for the irregularities in Mercury's orbit?

This question remained unanswered until 1916, when Einstein's theory of general relativity clarified these discrepancies. Yet, this failure of Newton's theories to account for certain phenomena cannot cause insult to him, for although several observations later lent credence to Einstein's propositions, according to the principles of science, they will be considered valid only until they fail to explain a new puzzle.

Both strands of thought—that which asserts there is nothing beyond the material world, beyond what we apprehend through our senses, and that which claims there is a realm that transcends the perceptible world—have been prevalent since ancient times. As science advanced, challenging the erstwhile domains of religion, the materialists gained prominence. The legitimacy of religion's claims to explain things within *and* beyond nature were eroded. This was nothing short of a cultural and intellectual revolution.

It was a revolution that transformed human behaviour across civilisations. A spate of witch-burnings took place in the fifteenth and sixteenth centuries in Europe. When hens started dying or cows stopped giving milk in a village, villagers would catch hold of an elderly woman and attribute her mumbling or trembling to her adeptness in black magic. She would then be produced before a judge and burned at the stake. The burnings stopped in the seventeenth century—not because the villagers understood why the hens had died, but because judges and other educated people in Europe realised that the world is governed by certain rules and not by magic. In short, they accepted that that when man doesn't know why something is happening, the reason is

probably to be found in nature.

How does scientific temper grow?

It starts with a question taking form in the mind. Man's observation of his natural environment as well as of his own social interactions leads him to ask lots of questions. This, essentially, is what it means to be human—asking yourself what, how and why, and trying to find the answers. These answers in turn lead to innumerable questions, thus aiding the rapid progress of science.

The foundation of scientific temper is the investigation of natural phenomena that is both provoked by, and based on, observation. Man observes that the lid of a kettle of boiling water keeps falling off; he asks who pushes it. Dr C.V. Raman observed that the sea and sky were both blue; he questioned why this was so.

After information is gathered through observation, it has to be classified and ordered meticulously. If we are trying to determine whether the weight of objects affects the speed at which they fall, we have to log our observations for different objects of varying weight. In the scientific method, it is imperative to collect and document proof in this manner.

For centuries, on the basis on Aristotle's claim, it was believed that heavier objects fall to the ground faster. Neither Aristotle nor his disciples felt the need to test this by dropping heavy and light objects from a fixed height at the same time. Aristotle also proclaimed that women had fewer teeth than men. He did not test this theory on his two wives, nor did his disciples examine his assertion. Similarly, many things are taken for granted, based on the revelations of holy books and the pronouncements of spiritual leaders—the most prominent instances being the concepts of heaven, hell and reincarnation. The fact that most people are unable to examine these statements fully does not make them self-evident. Beliefs, preconceptions and personal experiences do not stand in lieu of proof.

Further, on the practice of scientific thinking, it is important to remember that a question which occurs to you might have occurred to others before you. Therefore, it becomes necessary to examine other people's observations and proofs related to the question. It has to be assessed objectively in relation to questions that have come before it. In this process, some questions get

answered while others turn out to be more challenging.

The latter are engaging. The wheels of thought start turning, revealing a number of possible answers. This is why it is insufficient to say that an apple fell on Newton's head and he arrived at the concept of gravity. The question Newton asked was born of various observations: from falling stones to orbiting planets. The apple that led to the answer was but a culmination of several questions.

If you are not the sort of person to pose such challenging questions, neither apples nor rocks falling on your head are going to suggest to you the rules of gravity or motion. The scientist's interrogation of her or his physical world demands a certain creativity. When the possible answers are subsequently arranged in a logical manner, they provide the justification for a hypothesis.

When the justification and the hypothesis resulting from it challenge established knowledge, the proposer of the theory has to test it. Scientists can test multiple hypotheses to solve a single problem. Newton proposed that light was made of particles, hypothesising that this was why it travelled in a straight line and how it was refracted. Later, Huygen proposed that light was composed of waves. Which of these theories was true? A physician called Young eventually demonstrated through an experiment that light is, in fact, made of waves; thus, Huygen's proposition was accepted.

The final stage of the scientific method of acquiring knowledge is the journey from hypothesis to theory. A hypothesis does not attain the status of a theory until it is refined in the furnace of experimentation. Hence, for instance, when we are aware of the laws of motion, we can predict the time it takes for a spaceship to reach the moon. Similarly, diseases can be cured on the basis of our knowledge of physiology and medicine. However, the limitations of experimentation also define the limits of the theory. For example, Newton's laws of motion help explain the working of planets, stars, cars and even children's toys. But they cannot provide adequate explanations for the activity of subatomic particles in electronics, for instance.

The chief difference between religious philosophy and scientific theory lies in the fact that religion asserts that there is an eternal and unquestionable truth while scientific assertions

are always subject to revision. However, in advanced sciences, revisions serve largely to refine existing theories. Usually, a well-established theory does not end up being entirely discarded, but gets subsumed into a newer, more adequate theory.

Thus a truth comes to light, bringing us to the end of the journey that starts with the asking of questions. However, since the knowledge we can acquire is potentially limitless, the truth is only true in the context of currently available knowledge. It is not the ultimate truth, even though it widens the horizons of man's knowledge a tiny bit. Again, new questions are born and the journey of discovery, with the aid of the scientific method, begins anew.

Contemporary society is devoid of scientific temper. Widespread illiteracy is an important reason for this, though not the only factor. Education encourages people to think scientifically. Even if this is not entirely true of the educational system today, it is reasonable to expect this outcome as the cultivation of scientific temper is, in fact, one of its principal objectives.

Forty-nine per cent of India's population is illiterate and, hence, understandably prey to superstition. Ten to twelve per cent of the population is between sixteen and twenty-three years old, which is the age group for higher education. Out of these eight to ten crore people, only thirty or forty lakh, that is, only 4 per cent, receive higher education. The rest either drop out or remain illiterate. Four major reasons for illiteracy in our country are poverty, unavailability of education in backward areas, the caste system, and gender-based discrimination. There is a lack of political will to remove these obstacles to education, and so the absence of scientific temper is hardly surprising. What is noteworthy is that it is absent even among those who are educated.

What values mould our children today? Even when the curriculum includes science, the analytical and research components of science are missing. What they are learning at school and at home is that religion is of supreme importance, that their caste is high or low, and that success and failure are up to God. They learn about sins, curses, heaven, hell, prayer, fasting and reincarnation. These ideas take firm root in our children's minds, and they also help spread them. Besides, after

being taught that Lord Vishnu likes white flowers and Lord Ganesha, red, the flowers of scientific curiosity can hardly bloom.

A sense of inquisitiveness ought to be instilled in children from an early age. Yet, in our school system, we do the opposite. Teachers worry chiefly about completing the syllabus. Students are taught that the sun 'rises in the east and sets in the west', but they are not told what this means. By nature, children are full of questions. Every day, in classrooms, their unending curiosity presents their instructors with a barrage of questions, but how do teachers respond to this? 'Keep quiet, this won't be part of the examination. Cease your unnecessary buzzing,' is the typical response.

When science teachers think questions about science are 'unnecessary buzzing', when studying for the test is paramount, and where keeping quiet is the ultimate virtue, tomorrow's youth cannot reasonably be expected to approach their problems with a scientific spirit. An anecdote narrated by the famous scientist, Dr Jayant Narlikar, is telling. When he enrolled his daughter in a school in the UK, her fourth-grade teacher had this to say about her: 'Your daughter is definitely smarter than the other students in my class. She has only one drawback—she does not ask questions.' The teacher even promised that by the time the family returned to India in a year, this shortcoming would have been overcome. And that is exactly what happened.

This absence of questioning points to a severe deficiency in our education system, retarding the progress of our society as a whole. Advanced nations recognise the need to foster a spirit of enquiry in their people. The following article, by Stephen Platzer, then a visiting professor, that appeared in London's *The Daily Telegraph* on 13 September 1991, is illustrative of the urgency with which this need is felt:

> The purpose of education is not just the acquisition of knowledge or information. The purpose of education is to teach students to think independently, critically and to not accept given knowledge unquestioningly. Today, Japan is the world leader in making several kinds of appliances. Computers finish the tasks they are given quickly and accurately; but the questions of the next

> century are going to be, what tasks do we assign computers? How do we satiate their endless hunger? These questions will require independent thinking. Our education system has neglected to nurture this quality, and we will feel its absence painfully in the next century.

In education systems across the world, students are burdened with the weight of examinations from a young age. Examinations test their skill in taking examinations, but not much else. Schools are not used to teach children how to think; rather, they are used to restrain thinking. Professor Platzer was astonished at students' attitudes towards learning at Kinki University in Osaka. They were simply absorbing the knowledge dispensed by the instructor without question or doubt. Moreover, they were uncomfortable with the students that did ask questions, and even with answering questions that the instructor posed. Because they were not encouraged to think, these students were also not interested in what was happening around the world. During the time Professor Platzer was in Japan, America had attacked Panama. A week after the attack, the professor asked the students about their reactions to it. It was clear from their faces that they did not have a clue about what had happened. According to Professor Platzer, this incident was no exception. He was surprised to learn that organisations recruiting from universities in Japan preferred fresh graduates with blank slates for minds.

As in Japan, the education system in India ascribes undue importance to examinations. And just like the Japanese, we, too, are neglecting to nurture independent thinking. In Japan, at the very least, education is aligned to the needs of employment and business. In India, we do not even manage to accomplish that. Naturally, developing scientific temper through education is a distant dream in our country.

Another institution that generates and sustains core values is the family. In India, families are generally autocratic. The head of the family has the final word on all matters. His wishes and his instructions are paramount. In this context, expressing or changing one's personal opinion, resolving issues through discussion, and individuals behaving as they please or desire,

even within the bounds of societal appropriateness, are unheard of. Naturally, developing an impartial and mindful perspective within the family is tough. In the traditional Indian mindset, tendencies towards idolisation and deification are so strong that even the slightest opposition to what the majority holds sacred—beliefs *and* people—is deemed intolerable. Expressing honest criticism of certain people's views and actions is even more difficult. The mere suspicion that such criticism is afoot can unleash a storm. Without a doubt, scientific temper cannot easily be sustained in a society that thinks this way.

Another widely prevalent mentality holds us back: we unnecessarily hold in great esteem the opinions of a person who has excelled in a certain field, even when said opinions are completely unrelated to their field of expertise. In our country, accomplished sportspersons, artists, writers and politicians often assert opinions that are contrary to scientific temper and people take them seriously.

Hence, the tasks of a progressive movement are clearly cut out for it: training people to be more observant, inculcating in them the courage to ask questions, and keeping them away from fatalistic thinking. Our society presents the picture of a lopsided see-saw, with the supremely heavy burden of tradition on one side and a weak proclivity for reform on the other. Here, tradition has always been more effective than change. Critical analysis has never enjoyed the respect and support of the people. Again, it is difficult for scientific thinking to flourish in a society with these characteristics.

It is no use simply keeping scientific temper in mind, or talking about it. No matter how much knowledge you acquire in any number of fields, it takes immense courage to give up old habits and acquire new ones. This is why thought leaders and people who want change have to walk the talk. The more transparent and firm their behaviour, the more likely their ideas are to capture people's imaginations. Movements that advocate scientific thinking have as yet failed to measure up to this challenge in our country.

At the same time, it is important to realise that people's lives are weighed down by the pressures of everyday life. They have to worry about job security, their children's jobs and marriages, securing their property rights, provisioning for emergencies, and

maintaining self-respect and a good reputation while doing all of the above. They often feel as if they are not in control of the trajectory their lives take. Social behaviour and aspirations today are motivated largely by selfishness and a blind race to the top. People prefer taking convenient and comforting shortcuts in thought rather than analysing matters impartially. In these circumstances, it is understandably difficult to maintain curiosity.

All these hindrances exist. Yet we have to be determined enough to overcome them, because losing our ability to think is akin to losing our humanity.

Many criticisms are levelled against scientific thinking. Certain spiritual thinkers bemoan the fact that theories in science are unstable. Scientific truth keeps changing. How do we take such an unstable discipline at its word? How can a society organised according to scientific principles be beneficial to people? What is the point, if today's truth is proven wrong tomorrow?

This is a popular ground for the dismissal of science as a way of knowing—and it is fallacious. 'Spirituality begins where science ends' is an oft-used, but untrue, remark. All the scientific knowledge available to us today has strong foundations. Likewise, the linkages between the different branches of science, such as physics, chemistry and biology, are also well established. A rebel scientist may turn her back on science as we know it today, but she will be unable to counter the knowledge acquired through scientific thinking.

In any case, science is not as unstable as its critics make it seem. Several theories relating to speed, electricity, chemical substances and medicine, for instance, are perfectly sound. A simple demonstration of their validity is the array of inventions that have been developed using these theories—radio, television, aeroplanes and movies, to name just a few. Scientific thinking (and practice) is much younger than religion in human history, and yet it has achieved much more than the latter.

Many people doubt or even despise science. They find it arrogant or immature—the tendency of those who think scientifically to not believe in a Creator and to face their problems without recourse to an 'Almighty'. People who derive emotional support from the concept of God have the right to

continue doing so, and the Indian Constitution protects that right. However, what has more merit: submitting to a higher power and believing it will save you regardless of your own efforts and actions, or analysing your problems, admitting your mistakes, fixing them and facing your issues? Which way of life bolsters a person's self-respect?

'However inventive human beings may be, can they reign over nature?' This is a question people often ask—sometimes innocently, and deviously at other times. One wonders if these people picture nature as an all-powerful, divine force, and all the branches of science as a bunch of ragtag swordsmen fighting it. Humans unearth the rules governing nature with the aid of scientific thinking, and using this knowledge, try to improve their standard of living. Man can build dams to stop the ruinous scourge of floods and find ways to supply water perennially to dry areas. He is able to do these things because he has succeeded in discovering certain rules of nature and turning them to his advantage. The objective of science is not to win a war against nature but to harness it for the benefit of human beings and enable them to cohabit meaningfully with it.

Another belief that is propagated, intentionally or unintentionally, is that a scientifically aligned life is dry, meaningless and emotionless. Emotion is a necessary and powerful part of the human personality. Scientific temper is only opposed to the complete renunciation of common sense in favour of emotion. When a child falls ill, a mother who believes in science will make medical treatment available to her. On the contrary, a superstitious mother will pray to God, fast, and tie a holy thread around the child's wrist. Does this mean that the scientifically aligned mother is devoid of emotion? Indeed, by rejecting the forfeiture of her intellect to superstition in such a situation, it is she who takes better care of her child.

Another favourite argument of the science detractors is that science does not really help humanity because the Bhopal gas leak killed thousands, or because tens of thousands were annihilated by the atom bomb dropped over Hiroshima. While levelling these allegations, people conveniently forget the fact that science has exponentially improved humanity's living standards, and therefore played a central role in making human life happier and more secure. Science has ensured that we have

the capacity to produce food that would be more than enough to feed everyone in the world. Science has banished countless diseases that have distressed humankind for ages. It has revolutionised the way we communicate with one another. It has unlocked fantastic treasures in the realm of entertainment.

Scientific temper has empowered humans to do in the last two centuries what couldn't even be conceived in the millenia of human history that came before. It is true that the science that guides you to discover fire does not tell you whether to use it to cook food or to burn your neighbour's house down. These decisions have to be taken by humans. However, this fact does not diminish science's contributions to the story of humanity, or its truth, which is supported by concrete evidence from the physical world.

All this is difficult for the common man to accept because he is ensnared by tradition—religious values, the teachings of saints, and so on. The weight of these beliefs impair their ability to reflect; even when they do, they are unable to do so well. However, when we change or break tradition, we do not insult our ancestors. The decisions they made and the rules they set up were based on very limited knowledge; as the corpus of knowledge grows, rules ought to change in synchrony with it. All that is irrelevant in the light of new findings needs to be discarded, and practices appropriate to the current state of knowledge need to be adopted. Even if priests and saints assert that everything is preordained, we must not believe this so easily. We must understand that certain 'divine' revelatory experiences can be explained as hallucinations by modern psychology and yet respect the fact that certain things taught by religion—for instance, the principles of equality, peace or forgiveness—are beneficial to society. Such analysis must be applied not only to the teachings of saints but also to those of the founders of religions.

Many people who have earned dazzling degrees in science uphold unscientific customs. Many people who proclaim themselves to be scientifically aligned fail to transform their beliefs into actions. But this is no reason for us to question scientific thinking itself.

Possessing scientific knowledge and developing a scientific temper are two different things. A person who has studied

science is more likely to develop a scientific temper than someone who has no knowledge of science, but there is no guarantee that she will do so. Scientific thinking requires independence of thought, a faculty which inheres within a person's value system. Thus, mere intellect cannot help develop a scientific temper. A person can be highly intelligent and yet incapable of independent thinking, while another person of average intellect could have a keenly analytical bent of mind.

In other words, acquiring scientific knowledge is a function of someone's intelligence but developing a scientific temper is a function of their values. In the same vein, the notion that common people lack the ability to internalise scientific thinking is false. In fact, it is much more difficult for such people to internalise the teachings of religion.

Certain people who possess a scientific temper also follow superstitious practices. They are either insincere or struggling to live in the way they want to. Perhaps they do not want to detract from their well-wishers. Whatever the case may be, they cannot be held up as examples for the failure of scientific thinking. We do not label pious believers as irreligious just because some other people use religion for their own benefit. After all, most people struggle to reconcile their beliefs and their deeds. However, the truly scientific person strives to bridge the gap between their thoughts and actions.

Scientific thinking saves time, effort and money. There are only two options before us if we want to solve our country's problems: we can be slaves to tradition or we can think scientifically. Our long history complicates this choice; the hold that tradition has over us as a people is agonising. In Indian social contexts, it is tough to adapt old beliefs, habits and institutions to changing situations. Scientific thinking helps us determine the magnitude of such changes. And a scientific temper teaches us that no matter how glorious our past, it cannot solve the questions of a completely different time—the present or the future.

A convenient merger of slavery to tradition and scientific thinking is even more dangerous. For instance, we sing the praises of scientific thinking everywhere, from our textbooks to our Constitution. But the Notable Research awards of the National Science Congress go to heads of institutes of revelatory

knowledge or to chartered accountants who write essays on astrology. The Science Congress does not feel the need to correct these errors even though several venerated scientists have objected to them. No one sees anything absurd in a governor who performs a prayer ceremony to propitiate the rains, or in prime ministers and presidents who, while ushering India into the twenty-first century, also fall at ring-producing Satya Sai Baba's feet.

If we incorporate scientific thinking in education, our children can be taught to combine and make sense of various experiences, and to derive conclusions from them. We are tenth in the world in terms of the total number of people working in research and technological development. This is remarkable, considering the levels of poverty and illiteracy in the country. We spend about 1,000 to 1,500 crores annually on research and development. However, there are many factors which could undercut these appreciable achievements. Chief among them is the fact that we have forgotten how to turn experience into knowledge and to assess the social relevance of knowledge. This has had terrible consequences for society as a whole.

For instance, in a country that develops and uses world-class technology, people are still struggling to fulfil basic needs like clean air and water, adequate food and shelter. Thousands of litres of milk are wasted every day, and yet 40 per cent of our population is deprived of adequate nutrition. Gigantic dams costing thousands of crores are being built, yet three lakh villages in India are parched for lack of water. Agricultural produce that the lower castes depend on for their nutrition are exported, and expensive medicines are imported for the rich. The air is extremely polluted. Many people don't even have a simple house, the building of which requires no foreign materials or technology. The fact that poverty can be reduced even by using available water resources properly has been demonstrated in several places in Maharashtra, but no one wants to pursue these practices seriously.

These problems did not come into being because the people responsible for solving them are stupid, selfish or anti-national. They exist and persist because the practice of considering the social implications of one's decisions and actions is rare in our country, and we don't even make efforts to repair this deficiency.

To cite a historical instance of this shortcoming, Chhatrapati Shivaji built a grand naval fleet in such a short time that it created unease in the British navy. Not realising the significance of this, the Peshwas collaborated with the British to destroy Shivaji's fleet. The moneylenders they borrowed from to destroy these ships heckled the Peshwas to return their money before they went to war with Nadir Shah. The British, in contrast, asserted that the money it had spent on the destruction of the Spanish navy was in the national interest and not for the Queen's revelry. They formed the Bank of England to raise funds for this purpose.

When we lose our ability to assess the social consequences of our decisions and actions, we turn our back on scientific thinking. This makes problem-solving a more difficult job than it needs to be. And when we have to bear the fallout of this mistake, theology attributes our suffering to destiny. Both approaches are wrong, and together, they cause much damage. The eradication of superstition is a fight against these ruinous tendencies.

Religious Inquiry and Rationalism

Religion has a special place in human life. Faith has been a part of human life in all parts of the world, in all kinds of communities, for as far back as we can trace human history. The birth and growth of scientific temper happened over the past four hundred years. Organised religion was born several centuries before that. In other words, even before science was conceived of, religion had acquired an extensive presence and exceptional power. All facets of life were affected by religion and it enjoyed unchallenged authority over the minds of people for a very long time.

When people begin to think independently, they also begin to examine religion carefully. Many do not like this pursuit of the truth, for different reasons. Such people are unable to understand the anti-superstition movement. Even though it is impossible to prove superstition right, they believe that those who strive to eradicate superstition are trying to destroy religion. In reality, the anti-superstition movement is neutral on the subject of religion. Some find this attitude unscientific and even selfish.

Many believe that scientific thinking can help us understand the physical world, but to resolve the questions of good and evil, and judge what is appropriate or inappropriate, religion is needed. They are afraid that, without religion, people will begin behaving immorally. They are concerned about what religion will be replaced with.

We learn languages as children. Most of us also acquire religions at birth. Just like our native language, this becomes our native religion. We accept religious thought because it is introduced to us at a very early age, and we do not think to question it at first. When we grow up, our ability to think and reason grows. We start comparing other religions with our own. That is when actual thinking about religion begins. Yet this does not, in fact, occur in most people's lives—the only thing age brings them is more rituals, more scriptures and a few pilgrimages. As religious values get further entrenched, they also start becoming more and more gratifying. At a personal level, there is nothing objectionable here. After all, the people practising the religion are not unhappy with their lot.

In Maharashtra, over the last century, many thinkers have analysed, considered and acted upon questions of religion. Lokhitvadi Gopal Hari Deshmukh, Mahatma Phule, Justice Ranade, Lokmanya Tilak, Pandita Ramabai, Dr Ketkar, V.M. Joshi, Rajarshi Shahu Maharaj, Gadge Baba, V.D. Savarkar, and Dr Babasaheb Ambedkar have, in addition to substantial contributions to their respective fields, also explored questions of religion. Their methods and conclusions differed, and may or may not be acceptable to some people, but it is undeniable that they sincerely thought about religion with a view to finding the truth.

Today, all religions are trying to increase their prestige and popularity. The younger generations are more enthusiastic than ever about visiting temples and other holy places, undertaking pilgrimages, listening to religious preachers and reading holy books. Pride in religion and exploring religion are two very different things. In Maharashtra today, pride in religion is at its peak and exploration of religion has touched its nadir. Because the anti-superstition movement operates in the realm of practical action, and because questions of religion are inseparable from questions of superstition, we naturally find ourselves inquiring

into the subject of religion.

All primitive religions were based on the belief that an ethereal substance is present in all things, living and non-living. This supposed substance, often conceptualised as spirits, was worshipped through various rites. These were performed for inducing rain, securing various gains, ensuring the defeat of enemies in war, protecting pregnant women, and so on. There were two kinds of rites: positive ones, conducted for the health, happiness and prosperity of individuals and communities; and negative ones, commonly known as black magic, and usually conducted with the intention of destroying the lives, health or property of enemies. Poking dolls fashioned in the image of one's enemy with needles is an instance. Gradually, human sacrifice entered this ritual repertoire: when the spirits were perceived to become weak, humans were sacrificed to rejuvenate them. All religions began from this spirit-based conceptualisation. Its influence has diminished with the growth of rational and scientific thinking, but it has not been eradicated.

The human mind tends to gets utterly engrossed in religious faith. Hence, periodically examining one's beliefs, sacrificing outdated ones and adopting new ones becomes necessary for the progress of the individual as well as society. Thus, it was beneficial for man to give up spirit-based thinking. Some researchers are comfortable calling spirit-based thinking 'religious', while others prefer to call it magical or even 'magico-religious' belief. The latter believe that the tag of religion must be attached to the beliefs of advanced societies only. Some even assert that only monotheist faiths are religions, while the rest are magical beliefs. In reality, the beliefs and actions of both kinds of faith are very similar.

Apart from a few notable exceptions including the efforts of some saints, the lives of people in India's rural areas have always revolved around spiritism. For instance, even today, before moving into a new house, people conduct a bhoomi pujan to ward off evil spirits living on the land. They hang a lemon and chillies at the entrance to keep bad luck at bay. Once the house is constructed, a vastu shanti is performed; some people even sacrifice animals. Yet, they do not equate these activities with magic.

Castes based on birth are also a product of such belief

systems. The Warkaris in Maharashtra tried to be egalitarian by removing external markers of caste, but many who participate in the warkari yatra, a pilgrimage to Pandharpur, still engage in casteist practices; they maintain separate dwelling sites, paths and cremation grounds for different castes in their own villages. Commercial transactions among different castes is rare; intercaste marriages are nigh impossible.

It is evident that an overwhelming majority of the people in our country are still under the influence of spiritism. From those who consider themselves to be Brahmin to those who are considered Shudras, everyone is influenced by casteism, perform rituals to appease deities, indulge in sacrificial practices, and believe in tantricism and astrology. Certain faiths have sprung up in urban areas that are anti-spiritism, but there has been no decisive confrontation between the two forms of belief. Most people believe in wish-fulfillment through gods: they believe that performing a sacrifice, reciting a mantra or undertaking a pilgrimage will rack up their good karma and grant them favours from a deity.

The philosophy of the saints of the Bhakti movement diverges from all these beliefs. They preached that man must first and foremost do good deeds and concentrate on being pure at heart in order to get closer to God. He must stop trying to appease deities. The saints not only preached these values, but also practised them. However, this Bhakti tradition did not succeed in replacing the earlier practices in Maharashtra or the rest of India. The concepts of sin and virtue, sacrifices and pilgrimages, remained. The saints' teachings were eventually subsumed as a small part of the overall tradition.

If these are the characteristics of spiritism, what is the essence of the more 'evolved' religious philosophies? It can be summarised in this way: there is a transcendent power in the world. This transcendental element is beyond the apprehension of ordinary human senses. It is a supreme, sovereign and regulatory power. A few people can see or feel this power through extensive contemplation. Man instinctually craves to connect with this power, and becoming one with this power is the ultimate goal of human life. Dharma, it is said, is this divine, all-encompassing and universe-controlling power. Pious behaviour is that which allows you to achieve union with this

divine element. The faithful believe that experiences which make one aware of the presence of this divinity are other-worldly. The existence of such experiences is a fundamental assertion of religious belief.

Religious philosophy is manifested in many different ways in various civilisations and communities. But its most popular strands are characterised by the notion that this transcendent power is called God, and the soul is a part of God. Moksha, or oneness with God, is attained through worship. Advaita Vedanta propagates a version of this idea. The power is not necessarily God; the crucial part is that it is believed to transcend the material world. Religion tries to make sense of the world through these different, often conflicting, beliefs. These notions, in turn, permeate the daily life of believers.

However, scientific thinking prompts these questions: does this transcendent power even exist? Can the fact that some people say they experience it be considered valid proof? Should these beliefs be accorded the status of philosophy? These are reasonable questions. The institution of religion, important though it may be, was conceived and consolidated at a time when man's logical capabilities hadn't developed fully. Since its inception thousands of years ago, religion has held man's mind captive. Psychology has shown that, despite religion's resistance to logic, its hold over human minds does not loosen. The religious explanation for this lack of logic is that there is a duality in human experience: a distinction between what we sense through our sense organs, and what we sense ethereally.

How do religious beliefs regulate everyday life? Many traditional ceremonies, rituals and practices in society, such as weddings, inheritance or adoption, are legitimated by religion. Private and communal prayer, fasts and vows are all religious inventions. Most of these observances are tied to the notion of an afterlife. Morality, including the concepts of virtue, non-violence, truth, renunciation and stoicism, is also taught as a component of religion. Religious teaching, in addition, includes certain conceptions of the world and man's place in it—usually anthropocentric ones. It also propagates its own brand of sociology and its own theories of social organisation.

Traditions and rituals, and moral and sociological theories are not separate parts of religion. Religion is created by the very

interaction of these concepts. And thus all of this ‘religiosity’ has seeped into society, with considerable impact on the people holding these beliefs.

What does our anti-superstition thinking reveal about religion?

These rituals can be exploitative and meaningless. Until recently, many people believed that if a girl did not marry before a certain age, her parents would be condemned to hell, and that the doors of heaven would close for them if they did not have a son to perform their last rites. A huge amount of rice is thrown over the bride and groom during the wedding ceremony. In Maharashtra alone, fifteen to twenty lakh kilos of rice are wasted every year in this manner, but even raising this issue is considered blasphemous. Daughters are ‘donated’ in kanya daan as if they are goods, and this degrading practice is seen as a matter of pride. A widowed woman is kept away from her own son’s wedding for no fault of hers. When a family member dies, people coop themselves up inside their homes for a twelve-day period of mourning and feed the whole village on the thirteenth day, regardless of the debts they would incur.

All these beliefs and practices are products of religion. In the Muslim community, triple talaq makes getting rid of a wife very easy. Sometimes couples cannot adopt even if they are incapable of having children. Every religion calls a man’s wife his ‘other half’; not one supports the woman’s claim to half her husband’s property. Religion pervades every aspect of life; this is the reason our movement needs to raise questions about it.

Which religious rituals should one follow? How does one please deities? How does one ensure happiness in the afterlife? These are personal questions for a believer, and religious individuals have the right to ask them. But what if, in pursuing religious goals, man is blinded to reason? Should we then respect his actions simply because they are religious? Should we not denounce them when they are inhuman? People have been known to run at the stone walls of temples, breaking their skulls on collision, simply to fulfil vows they made to God. They stab themselves in the back with a sharp knife or cut their own foreheads with a rusty one, tie themselves to a bullock cart which drags them along with it all day, tear open the sacrificial goat with their bare teeth, bathe their hands in buffalo blood and

imprint it on the temple walls, walk on fire and roll about in the dirt around the temple. Less horrifically, they are constantly preoccupied with their aartis or namaz, and agonise over how many times they should recite the gayatri mantra, how severely to fast or whether to finish eating before sunset. People have a right to perform these rituals, of course, even if others find them pointless. Likewise, other people have a right to analyse and criticise them.

When a manufacturer of sweets donates tens of thousands of sweets to a Ganpati idol, should this act be condoned as freedom of worship? Is it acceptable for lakhs of people to gather to perform a yajna for world peace? Is the pouring of hundreds of litres of milk, ghee and honey on the ascetic Bahubali's idol, in consonance with core religious values? Are meaningless, outdated fasts an essential part of religion? A banyan tree provides shade to a weary traveller but it can also fall and kill people when it is old and weak. How does tying a thread to a branch of this tree help increase one's husband's lifespan? What is the link between observing the Goddess Hartalika's fast and acquiring a good husband?

One story that our society cannot accept any commentary on is the legend of the Satyanarayana puja. This is described in the *Skanda Purana* in two parts, which implies it was written between 300 CE and 400 CE. The Purana says that Lord Vishnu prescribed this puja to Narada Muni as a way to earn the favour of the gods with minimum effort and money. Narada then narrated the tale to Suta Maharshi, who told it to Shaunaka Muni. The entirety of Hindu society is encompassed in this story. Its characters include a Brahmin, King Tungadhwaj, the merchant Sadhuram and a woodcutter. These four figures represent the four castes of the Varna system.

Sadhuram is a rich merchant. The merchant class, desirous of both preserving and increasing their wealth, is inclined to try and reap benefits from minimum investment in religious rituals. Therefore, while others in the kingdom observe the Satyanarayana puja once a year, Sadhuram is instructed to perform it every month.

The story openly uses the human motives of greed and fear to insist on the observance of this ritual. The woodcutter complies, and earns twice as usual on the day he performs the

puja. Kings are unlikely to be tempted by such gains, so Tungadhwaj refuses to perform the rite. As a consequence of divine retribution, he loses his sons and risks losing his kingdom. Once he buckles and performs the puja, his former glory is restored. The merchant Sadhuram is shown to be alternately tempted and threatened. Among other things, he is accused of thievery and is thrown into prison, and eventually all his wealth disappears. Needless to say, everything is resolved when he finally performs the Satyanarayana puja.

As the story illustrates, this is a prayer that is performed purely for personal material gain. There is no element of alleviating human suffering and granting prosperity to all, as Vishnu is supposed to have promised in his narration to Narada. The saint Gadage Maharaj used to ridicule the story of the Satyanarayana puja in front of assemblies of thousands. Indeed, rational people should not believe in or condone such rituals for obvious reasons, and religious people should balk at taking such an unabashed shortcut to personal well-being and gain.

Yet, most people simply acquiesce in such observances. This is akin to keeping your brain aside and participating in a meaningless ritual. The Satyanarayana prayer actually includes the verse which claims that the Brahmin was born out of Brahma's mouth, the Kshatriya from his arm, the Vaishya from his thigh and the Shudra from his feet. How is this acceptable? We either accept the Indian Constitution or we accept this verse. Do we know what we are agreeing to when we nod silently as the priest chants? Is this ignorance or cognitive dissonance that is being cleverly exploited by religion?

Worship is the act of trying to rid oneself of impurity of thought and action, a way of hoping to be of value to every creature on earth. Naturally, such worship is related to morality. There are rites or vows—such as of monogamy or truthfulness—that are primarily moralistic. However, religious worship and action are multifaceted. Just as they include rituals based on morality, they also include rites that propagate falsehoods and exploitation. We have to oppose the exploitation contained within religion. We have to expose the falsehoods. Even though religious rituals are an essential aspect of human societies everywhere, we must oppose the harmful ones.

We are often asked what harm there is in performing

religious rites and ceremonies. But we know that there are many very devout people who do not need rituals. They believe that merely thinking about God is enough. The fundamental point is that one's intentions ought to be altruistic and morally sound. If this is not the case, then rituals are of no use. If they are, rituals are not needed. Ritualism has many ills. For one, by relegating intellectual curiosity to the sidelines, it leads to societal regression. In overtly ritualistic societies, scientific discoveries and inventions fall behind, not to mention economic losses that occur because the energy and drive that needs to be invested in economic activity is diverted towards elaborate rituals. Only the rich can afford these rituals, and consequently people start to believe that the doors of heaven are open only to them. The wealthy begin to be self-centred as they lose themselves in thoughts of the afterlife. More rituals also mean more benefits for the priestly classes which fatten themselves on the fear and greed of vulnerable people.

In most cases, while these rituals are performed, their moral core is conveniently forgotten. Only the ceremony remains. Just one example is sufficient to illustrate this point—the Kumbh Mela that takes place every twelve years in the cities of Ujjain, Rishikesh, Nashik or Allahabad. The story goes that to obtain the divine nectar produced by the churning of the ocean, the gods fought the asuras for twelve years. During the fray, four drops of nectar fell on these four cities. Bathing at these specific points in the cities is considered holy.

Lakhs, sometimes crores, attend these melas. Nowhere else in the world can you wash away twelve years' worth of sin by bathing once, so people from several countries undertake this pilgrimage. Thousands of 'ascetics' settle here for a month. They fight like children over who has the right to bathe first. No devotional songs are sung; no spiritual discussion takes place. Donating food or blood are ideas that do not even strike them. They spend their days smoking cannabis, wasting large quantities of milk and ghee, and admiring the lavishly adorned elephants, horses and camels. The government spends crores of rupees on the facilities for these melas. What sort of worship is this? Who benefits from it? Even asking these questions is considered to be an insult to religion. The Maharashtra government spent thirty crores on the Kumbh Mela at Nashik. This, when half the

primary schools in the state are short of teachers, buildings, drinking water, even chalks and blackboards.

The customs and traditions of religious worship occupy a very important place in human life. That makes it equally important to examine the justifications for these customs. This is not tantamount to opposing religion; it only means that we are looking at it critically. However, there is an even more important issue at stake, one that is best elucidated by the following extract from Lokmanya Tilak's *Gita Rahasya* :

> The word religion (dharma) is often used in the sense of the beyond. When we ask someone, 'What is your religion?', we mean which paradise do you seek: the Vedic one, the Jain one, the Christian one or the Muslim one? But that is not all that religion means. For instance, the four aims of life are said to be dharma, *artha* (wealth), *kama* (pleasure) and *moksha* (liberation). If dharma included moksha, there would be no reason for the fourth aim. The word 'dharma' means the science of social organisation.

Thus, religion is more than customs, traditions, rules of conduct and good values. There are those who have wanted to establish theocracy in this country. The reasons they cite are duplicitous. Religion might be marketed by such people as a fountain of moral values, but in reality they would simply use it to organise society in a certain way. Social organisation was indeed the prerogative of religion during periods of human history when slavery and autocracy was rampant. In modern times, however, social organisation belongs to the field of politics.

Ostensibly, the anti-superstition movement may deal only with the fringe of religion. However, this does not mean we cannot oppose those seeking to turn India into a theocracy against the letter and spirit of the Constitution. In fact, educating people about the dangers of such political trends is in concordance with the ideas and goals of the anti-superstition movement. When the situation is such that a parliament of religious leaders starts taking decisions about the social organisation, politics and economy of the country, resistance

becomes more important than ever.

The Supreme Court has repeatedly asserted that rejecting secularism is completely unconstitutional. Elections are declared void when votes are sought in the name of religion, because canvassing in this manner is inimical to the fundamental democratic concept of 'one person, one vote, one value'. We in India ought to understand this, having been subjected to the influence of religion not only in politics and social organisation but also in every conceivable sphere of personal life. The section of *Manusmriti* that deals with politics details how a king should punish criminals. It is astonishingly casteist. Apart from thievery, it prescribes softer punishments for all crimes if a Brahmin commits them. All other castes are prescribed punishments in increasing degrees of harshness. For the Shudras, the recommended punishments are cruel and inhuman—tortures that only a revenge-crazed madman would think of. Manu believes that a king should use his powers of punishment unreservedly, to prevent his subjects from succumbing to anarchy. But how does Manu define anarchy? Apparently, one of the characteristics of anarchy is that the Shudras become capable and self-sufficient people.

Chapter 9 of the *Manusmriti* rambles on and on about the nature of women in a manner that would make any civilised person today hang his head in shame. Then again, every holy book condones the inhumane treatment of women and the lowest classes in the name of religion. When we observe how Bohri religious leaders use their authority to punish people in their communities, or how Jain leaders excommunicated Jain nuns because they used vehicles to travel abroad, it becomes clear that the punitive aspect of religion is merely a ploy to regulate individual lives and societal development.

The anti-superstition movement opposes such tendencies and urges people to use their common sense. Those who want to establish a Hindu Rashtra in India have clearly lost their common sense. What do we do with the Muslims once we establish a Hindu nation? It would be impossible and inhuman to expel or kill the twelve crore Muslims living in the country today. In an era where weapons are so easily available to all, if India's seventy crore Hindus were to go to war against the Muslims in order to enslave them, it would be nothing short of suicidal,

leading to overall destruction and anarchy. Hence, if we eliminate all these options, the one that remains is that we all coexist peacefully, justly and fraternally.

We encounter three issues with respect to religiosity: one, how religious morals play out in action; two, how to accurately implement the constitutional goal of secularism; and three, how to provide a comprehensive alternative to religion that is based on rational thought.

Saint Gadge Baba believed that religious morals could be summed up thus: give food to the hungry, water to the thirsty, education to the illiterate, healthcare to the sick, protect the animals and serve the poor. This was the legacy of all the great Maharashtrian saints. It is to Gadge Baba's credit that he practised what he preached. Maharashtra's social reformers were also impressed by this humanist, reformist face of religion.

Marx called religion the opium of the masses because of its twisted incarnations in human society and its efficacy in oppressing the common people. Many intellectuals assert that religion is incompatible with scientific and objective thinking. These opinions need to be taken into account. In today's times, when the corruption and insidious use of religion has become so widespread, how do we counter these tendencies? By cultivating rationalism in society? Or by believing that religious thinking is fundamental to human nature? The anti-superstition movement is equally open to both these positions.

Human beings are intrinsically predisposed to wondering about the nature of their existence, and that of their environment. They notice the rule-bound and systematic working of the world, and realise that they are ignorant about how it all began. They recognise the limits of their knowledge. Religious faith is born of a humble realisation of the insignificance and smallness of humans against the vast backdrop of the cosmos. This is the human-centric version of evolved religion. Thus, people start believing that the Creator is just and kind, a support for their personal and social lives. By extension, serving other people is considered equivalent to serving God. God is believed to be the father and all humans, one's brothers and sisters. Living life according to such a faith does not require any prophets, holy books or idols. The following dialogue from Mahatma Jyotirao Phule's *Sarvajanik Satyadharma* is worth reading:

Balwantrao: So should we not even utter the name of the creator?

Jyotirao: A person who says that we must never even gratefully and humbly utter the name of the creator is ignoble and ungrateful.

Balwantrao: In which circumstances and how should man gratefully and humbly utter the name of the creator?

Jyotirao: Futilely taking God's name all the time will not give anyone peace of mind. Instead of coming up with convoluted religious conjectures about how God rewards people, people must believe that they will obtain output in life according to the effort they put in. This will leave no room for any disagreements and clashes; overall all people will be happy and the true reign of God will be established.

Balwantrao: Should we worship our creator by offering him flowers?

Jyotirao: If God has created all things, what is ours to give him?

Balwantrao: So how should we use these flowers?

Jyotirao: They must be made into garlands for the people who work day and night for the welfare of their families and of humanity in general—those who work to rescue people from selfish and exploitative holy men.

Yashwant Phule: How should we appease the creator by offering food and other objects?

Jyotirao: If God has created the whole solar system with all its planets and satellites, and every substance on earth for man's benefit, what among all these things will we offer him?

Balwantrao: Do prayer ceremonies and chants give the creator any satisfaction?

Jyotirao: No. All this is a ruse cooked up by cunning

fraudsters to take advantage of our ignorant brothers.

Balwantrao: So how should we pray?

Jyotirao: God has created all substances. We should work day and night to put those substances to their best uses.

Manaji: Do you believe that there is no heaven?

Jyotirao: There is no doubt about that. Has any person seen heaven and returned? Can one find such a person in any part of the world?

The anti-superstition movement respects the kind of religious faith that aids the progress of mankind. It does exactly what we aim to do from a rationalist standpoint, only in a different way. However, religion in practice is rarely so benign. In addition to moral strictures, it is often motivated by vested interests. Sometimes it contains only vested interests. The Constitution, therefore, has directions on how to resolve situations where religious freedom conflicts with the social good.

The secularism guaranteed by our Constitution has these salient features: the freedom to practise and profess one's religion, protection from discrimination on the basis of religion, and non-interference of the state (whether to help or harm) in religious matters. However, this freedom of religion is not absolute. It has certain limitations. The Constitution limits freedom of religion in the interests of national integrity, law and order, public morality and public health.

No matter how sacred the Golden Temple at Amritsar is, the Constitution would allow the army to enter it if secessionists should choose to hide there. People have a right to build temples, mosques and churches, but they cannot construct a place of worship in the middle of a public road; that would be a violation of the law. How to pray is a personal question, but the government objected to and prohibited the custom of nude river-bathing at the Shimoga temple in Karnataka, citing offence to public morality. The famous pilgrimage to Pandharpur is every devotee's right but it is unacceptable to undertake it without being vaccinated against cholera first. Otherwise, the disease could spread easily through the Chandrabhaga river, becoming

an epidemic that threatens public health. In actuality, the tenets of secularism are in keeping with the anti-superstition movement's neutral stance on religion.

The fundamental question about religion is that of moral philosophy. The great philosopher Immanuel Kant famously said, 'Two things fill the mind with ever-increasing wonder and awe, the more often and the more intensely the mind of thought is drawn to them: the starry heavens above me and the moral law within me.' Life is fleeting, and social norms are ever changing. So where do the eternal laws of morality come from? How do people find the courage to live morally even if the whole world turns against them? Who are we afraid of when we act morally, out of fear?

This argument is challengeable, however, as it tries to assign moral credit or responsibility to an entity—someone or something—that belongs to a religious or theological realm. Human rationality tries to find the same answer through a different route.

It is apparent that the common sense of human beings is the source of their rationality. Rationality works in two spheres: knowledge and action. In the sphere of knowledge, rationality employs scientific thinking to differentiate truth from untruth. In this sphere, religion falls behind scientific theories based on proof and logic. But it is important to understand that the original struggle was never between religious faith and scientific knowledge. It was between religious faith and rational thinking. Modern science is the fruit of rationalism.

In the sphere of action, rationalism makes decisions about what is appropriate or inappropriate, right or wrong. An important aspect of rational behaviour is that it is not self-centred. It is characterised by consideration for other people as well as consideration for oneself. A rational person wishes to avoid hurting people and becoming party to any form of injustice. Rational behaviour follows the principle of doing unto others as you would have them do unto you. Until the age of about seven or eight, children are very self-centred. Relinquishing this self-centredness and becoming socially aware, becoming rational, is a symptom of mental maturity.

The human mind is remarkably complex. It is motivated by several impulses: pleasure, greed, the desire for fame and

superstitious fear, to name a few. Rationality is also a motivation, but in order for it to be effective, it has to become the bedrock of thought and action. This is a particular way of looking at the world that emerges from value-based thinking. Scientific thinking is purely logical: the adjective 'rational' cannot be applied to it. Rationality, on the other hand, is closely tied to human behaviour. Cleverness is not rationality, as it is not concerned with the questions of right and wrong. Rationality is, and it decides whether the conclusions of a human's intelligence are appropriate or inappropriate. It examines values, feelings and faith.

Understanding this has serious implications for the place of religion in modern life. It means that instead of accepting holy books and traditions as our guide, we should depend on rationality. Rational thinking emerges as the worldly alternative to religious faith. A related conclusion is that all human behaviour should be directed towards our collective well-being and progress. Rationalism implies that we gain our knowledge of the universe through material ways, and that all social systems, transactions and relations ought to be arranged in ways that promote the growth and welfare of humankind.

In the sphere of action, rationalism and morality are one and the same. Some concepts of religious morality are situational and time-specific. In Islam, it is considered moral for a man to have many wives. The same practice is considered immoral in Christianity. In some tribal societies, it is normal for women to have several husbands. In most other communities, this would be considered immoral. The practice of sati was considered moral until the nineteenth century, and in this one, it is viewed as immoral, not to mention illegal.

The founders of all religions have directed people to be good. Moral principles such as truth, non-violence and love are beneficial to society. We cannot deny the need and usefulness of the rules of religious morality but, sometimes, one has no choice but to violate them. When a terminally ill person asks for a diagnosis, telling them the truth does more harm than good in some cases. The presence of a venomous snake in the house makes it necessary to violate the principle of non-violence. Thus, in many instances, it becomes difficult to reconcile these rules with reality.

What is needed is a comprehensive concept that resolves these discrepancies. There is no doubt that the rules themselves are good. Even though the effectiveness of being truthful and non-violent in specific situations can debated, it cannot be disputed that man must strive to be good in any situation. Here, it is less helpful to enumerate the various forms of good behaviour than to examine what 'good' actually means. The meaning of 'good' is in fact the overarching principle of rationalism.

Humans are, by nature, thinking, social animals and their capacity for rational thinking is born of these two characteristics. In other words, human 'goodness' is only meaningful in a social context. Rationalism in a person marooned on a desert island does not make much sense. Therefore, it is best determine what 'good' means after duly noting rationalism's social context.

If we accept that human existence hinges on our social nature, we realise that being good or rational means destroying our self-centredness and becoming socially aware. We must look at other people not as need-fulfillers, but rather as people who are experiencing humanity with us, navigating the complexities of life just like us, and tied together through the common thread of being human. Thus 'goodness' aims to bring about the overall well-being of humankind. Becoming rational entails transforming self-centredness into social awareness and transcending limited self-interest to inhabit a more inclusive plane.

This conception of morality is decidedly secular. It is a gift from nature, a natural result of evolution, and does not owe its origin to any divine power. Human beings live in society. Their development depends on social cooperation. Because values like love, support and non-violence are beneficial to human life, they thrived as we evolved and started building civilisations. Some people believe there is no morality without religion. They argue that since human nature is inherently selfish, we would altogether lack the moral faculty in the absence of religion. However, this proposal is invalidated if we believe that morality is inherent to man. However, we must remember that it is of fundamental importance to create the societal conditions for these natural qualities to flourish.

Whenever human beings are true to their nature, they derive pleasure from their actions. This is why moral people are happy.

They are saddened by others' pain; they derive happiness from helping others. The foundation of this type of morality is the human conscience, which is a highly evolved faculty of the mind. Any person can cultivate a conscience, and by extension, a social morality, if they realise this. Thus, we can agree with the reasoning that society ought to be moral for the individual's well-being, for which individuals ought to be moral.

Such a version of morality would be self-motivating and thus even an independent person can be moral. Everyone is affected by their social environment, but a rational individual is not a slave to the milieu they inhabit. They can make decisions based on their values, and this sets them apart. Dictatorships seek to oppress them politically, capitalism seeks to exploit them economically, and religious traditions and superstitions seek to enslave them mentally. Together, all these structures try to hamper the individual's freedom to make decisions. In doing so, they seek to destroy the very foundation of a person's morality. This is why rationalism is the weapon of choice of the anti-superstition movement, which seeks to fight against the collusion of these forces.

The Western tradition of rationalism stands against Christian faith in particular and religious faith in general. It claims that rationality, rather than religion, ought to be the deciding force and regulator for human life. It asserts that morality, which is one of the foundational elements of human civilisation, ought to be based on rational, and not religious, principles. It insists that the universe can be described truthfully and lucidly through the lens of rationalism. Most of all, it hopes to replace with rationality, the outdated religious basis for the relations between the individual and social institutions such as the family and the state.

In this way, modern rationalism poses a philosophical counter to religion. This does affect religion-neutral stance of the anti-superstition movement. This neutrality means that we believe a person, as a seeker and possessor of knowledge, cannot do without scientific thinking. However, this same person is also a moral actor. This role of hers is different. Certain types of moral behaviour are inherent to a person and independent of environmental factors. When a person believes that doing something is their duty, regardless of external influences, their

own wishes, tendencies and feelings, it becomes an action that is born of free will. In short, man cannot find moral values or conclusions in nature. Moral behaviour is the self-determined action of a moral actor.

What we believe is this: the moral world is part of the known world, because moral actors are people. However, in another sense, this world is different, self-contained; it does not follow the laws that govern the known world. Thus, human beings exist in two worlds simultaneously. It is believed that this intangible moral quality cannot be perceived by the senses; however, a self-aware person is aware of their morality. If humans possess this intangible, otherworldly quality, perhaps everything else in the universe is imbued with it, too. Our exploration of our own moral nature is the first step of the search for this quality in the universe. Traditional faith believes that God created man in his own image; modern faith asserts that the sublime quality in the universe is an image of the sublime quality in man. Thus, human beings have a dual role: their status as animals is fully reconcilable with the natural world, but their status as moral actors does not fit inside those borders. People need faith to believe that they are moral actors. However, this cannot be proved.

The question obviously arises: how do we believe something without proof? The anti-superstition movement does not oppose faith without proof when it comes to people believing that they are moral actors, and using this faith to practise morality. After all, it is moral behaviour, being good, that ultimately matters in this world. A rationalist should be judged not by the perfection of her scientific thinking but by her exemplary behaviour.

Many events and forces in history led to religious thinking becoming the authoritative way of thinking in human society. Down the ages, common people have always worked hard to survive. The poets wrote poetry, the painters painted and those in power administered that power. There was, in addition to all these people's values, the all-encompassing values of religion. All other values were considered inferior to religious values, and at best regarded as means to attain religious values. Today, can we not realise that even religious people have some assumed values that are separate from religious ones, and simply call these human values? We do not need to base concepts such as justice,

love, community, duty, equality and fraternity on religion. Whether you are religious or not, you want the human condition to improve. Even while you are going about your day-to-day business, you wish to surpass your limits and become better, live better. There is nothing mysterious or celestial about this feeling. Every human being tries to understand their limitations and overcome them. This is part of human nature.

A great disaster is upon our country today. We are surrounded by a storm of violence, hatred and religious extremism. One aspect of this is the ever-tightening hold of superstition, as well as a growing pride in being superstitious among our people. This is no time to get into a tussle about the ultimate truth. We must each stand up, according to our ability, and ask what we can do in the ongoing struggle for human values. There is no need to unduly mystify human values; perhaps it is the people who do not want to uphold them that find them mysterious. If religious institutions and pious people are opposed to this urgent struggle, their religiosity is surely false. If rationalists avoid this struggle because of laziness or because they believe they can live happily in their own world, their rationalism is spurious and exists only on paper. We do not need to debate or establish whether human values originate in nature, science, divinity or other otherworldly realms. The only proof of human values is humanity itself.

Superstition engulfs these values in an increasingly impenetrable darkness, making them harder to perceive and establish. In our attempt to attain the unattainable, countless unknown hands will pierce the darkness and help us move forward. We can change these conditions. This is the optimism that drives our movement. We hope that our goals will appeal to the very religious as well.

Please search your heart. Question your intellect. If you discover any sympathy for human values within yourself, join us in this people's movement. Because only humans can help humans, and only we can change our society.

Please think!

While Thinking

The futility of planchettes

I had just addressed an audience at an engineering college. When I came out after talking to some of the professors, a group of students was waiting to talk to me.

'Can planchettes really make contact with the spirit world?' they asked me.

'Not at all,' I answered smilingly.

'We don't believe that,' the girls said. 'We tried it in our hostel a few days ago. We wrote down English letters and numbers on a plank of wood, and placed a bowl upside down on the plank. Three of us kept a finger each on the bowl, and summoned a spirit. We asked it a question and the bowl moved over the letters, answering our question!'

I asked, 'What did you ask?'

The girls blushed a little and exchanged looks. One of them spoke up bravely, 'Will we fail or pass our exams? What will be the names of our husbands? Will we have to pay dowry?'

I asked, 'What is the proof that you got the correct answers?'

They looked at one another and thought for a while before responding, 'But how could the bowl have moved on its own? If the spirit can make the bowl move, that surely means the answers are correct.'

I was not in the least shocked by this exchange. I come across this everywhere in Maharashtra. However, I was a little saddened by the fact that tomorrow's engineers could believe in such things.

How many assumptions had they made? That people have spirits which outlive them, that the dead can communicate with us, the living, through objects like planchettes, and that they affect the material world despite not having physical bodies. That planchettes give accurate answers, that we can know of the

past and future through them. That when you pick up the plank, the spirit quietly goes back to where it came from. Of course, in order to cause a ripple in this world, the spirit has to pass a current through human fingers. Besides, at least one of the participants must have the dev gana in their horoscopes, and all of them have to truly believe in the séance. The whole venture would fail otherwise. Also, the spirits that are contacted rarely belong to common people; they belong to all sorts of famous or infamous people, from Osho to Hitler. I'm certain that some people have called upon the spirits of Agarkar and Savarkar, too, who themselves did not believe in spirits.

One of the principal rule of science is that no object can move even the slightest bit without the application of force, let alone wander across a plank. This is a physical truth that passes every test of reasoning and evidence. The belief that planchette bowls are moved by the spirits of the dead is born of either ignorance or deception; it is definitely not scientific truth. In other words, bowls can move on planchettes only if force is applied, knowingly or unknowingly, through the fingers. Placing your finger sideways causes the bowl to slow down and often to stop. Using a small glass instead of a bowl makes movement very difficult.

But when we blindly accept the idea of contacting spirits through planchettes, these simple questions or explanations do not occur to us. We do not like it when others ask these questions, either. There is not a single planchette bowl in India that will move when three anti-superstition activists place their fingers on it. Then, of course, it is conveniently discovered that our activists have rakshas ganas in their horoscopes (no doubt, it is to our detractors' advantage to argue that all our activists are monsters).

Anyway, where do these spirits live? In heaven or in hell? How do they come on being summoned? Surely spirits from an unknown world, capable of crossing thick walls and other barriers, do not need a medium?

If it can be proved that the bowl is moved even a millimetre by a spirit, without human touch or force, we will pay ₹ 5 lakh to those who demonstrate this and shut our movement down.

Why do these planchettes not work when non-believers perform the séance? Do the spirits run away? What does the gana

matter? Isn't all this pure nonsense, with zero scientific basis? How does one even know that the answers given by the spirit are accurate?

Suppose, for instance, that a dead brother's spirit is summoned through a planchette. The following exchange takes place:

'Brother, are you happy?'

'No.'

'Where are you?'

'On earth.'

'Has your soul been liberated?'

'No.'

How do we know these answers are correct? How do we test them? Our challenge is simple. If the planchettes guess every word in ten sealed envelopes, we will pay ₹ 5 lakh. We actually have this sum, raised through contributions of several people. We are not rich philanthropists, merely simple activists, but we are completely sure that we will never have to part with this money.

Just think: if planchettes really gave correct answers, why would the US invite worldwide criticism by bombing civilian settlements in Iraq? Couldn't they have just flown these planchetters in to find the terrorist bases? And even if we stop short of putting planchettes to military uses, the police would surely love to enlist their help to find criminals!

This is why we are enthusiastic about putting planchetters to the challenge we have devised.

Seek and ye shall find

Strange black patterns start appearing on the skin, clothes tear or get burnt inexplicably, stones enter houses seemingly of their own volition, ash is found to be mixed with food and objects are upturned or thrown around by invisible forces.

How do these mysterious things happen? Who makes them happen? When one does not understand, one starts fearing black magic.

We make the 'black magic' stop. We offer training along with adequate examples in our camps. All our writing on this subject is also available to the public. Naturally, when people understand the mechanisms of how these illusions are staged,

they bravely organise marches against the use of such deceiving tactics. But how does all this play out, exactly?

I once met a man. He had attended our camps and heard our talks about black magic. He had even read all our writings on the topic. His complaint was that he did not succeed in exposing the source of the 'phenomena' in a particular house, even after using all our proven techniques.

He said, 'I understood and accepted your logical conclusion that a human being was making these things happen. I insisted on seeing the happenings with my own eyes. I inspected the house, and interviewed the residents, convinced that someone in the house was doing these things due to some sort of mental imbalance. I did everything I could to find the truth, but I failed.'

We meet many such people. A farmer comes to us because he can't understand why one of his buffaloes has suddenly started giving bitter milk. A doctor comes to us because he cannot fathom why a new towel would develop holes within four days of use. In a village, dozens of tiny stones fall out of a girl's eyes, leaving her parents and all the villagers confused. What is more, despite this bizarre affliction, the girl seems fine. And the village starts fearing that this is a case of black magic.

Many of the people who come to us and recount these events harbour a scientific temper. They are prepared to call black magic a (particularly bad) fairytale. They read books and articles, and struggle to find the truth behind these incidents. So where do they go wrong? What impedes them?

The explanation is that most of these cases feature exceptions of human nature or exceptional happenings in nature. It is not easy to fit such incidents in a neat framework using rules and logic. This is especially true with respect to superstitions. In order to fight them, we have to research every case anew.

There is an astounding true story that illustrates this. We knew a twenty-year-old girl who seemed like a normal, good person. She was very skilled at making beautiful dolls out of mud. Then, a case of 'black magic' happened. Wherever the girl would touch the dolls with her fingers, a pattern of black dots would emerge. Soon, all the dolls had black dots on their faces and hands. The girl's health did not suffer in any way, but this phenomenon did not stop. She was on the verge of losing her job because of this. Her boss was uneasy, her colleagues were

shocked and her family's position in the community became rather precarious.

If the marks were on the girl's face, they would be easy to explain as a symptom of adolescent hormonal changes. But this case was different—the marks were on the dolls. All our tried and tested methods of demystifying black magic had failed in this instance. So, should we have admitted defeat?

Our investigators thought hard and probed deeper. They wondered if the girl's sweat, coming in contact with the dolls, could be causing the marks. Subsequently, they took samples of her sweat and analysed them. It turned out that her sweat contained an unusually large amount of organic sulphide. They then analysed samples of the black marks on the dolls, and found large quantities of sulphur and iron. Samples from unmarked parts of the dolls had much smaller quantities of the same substances. The next step was to find out why the girl's sweat had such an unusual proportion of these chemicals. A doctor figured out that garlic was rich in these compounds. Clearly, these substances entered her bloodstream through the garlic in her food, and then passed into her sweat. The iron in the mud reacted with these chemicals and thus the patterns of black dots were formed.

Still, there were those who doubted our findings. Lakhs of people eat garlic; how did their sweat fail to cause these black dots to appear? Why was this strange phenomenon restricted to this girl? Perhaps it was black magic, after all!

But soon, even this mystery was solved. It turns out that, in most people, the sulphides from garlic are expelled through urine. Only in very few people, like this girl, are the sulphides expelled entirely through sweat. On top of that, the girl loved garlic. In the end, to stop the 'black magic', to save the dolls, and, yes, to keep her job, she had to stop eating garlic altogether. And then her dolls started shining as before.

There is no guarantee, however, that we will find quick solutions to such mysteries every time. Whether we arrive at the truth sooner or later, we must firmly believe that it can be discovered only through scientific thinking. We need to keep searching until we find the answer, no matter how long it takes. On no account must we entertain the thought that 'it must be some kind of black magic'.

The following example of a commotion over ghosts is instructive in this context.

Major Edward Moor was a scholar of the Hindu puranas. After his retirement from the British East India Company, he was living in Great Bealings in Suffolk. There was a bell in every room of his house. On 2 February 1834, Major Moor came home after church and found out that his dining room bell had rung thrice between 2 p.m. and 5 p.m. Subsequently, the bells started ringing every day. Surely, this was black magic! How else could the bells ring when no one was at home? But Moor did not believe in such superstitions. He scrutinised the situation closely. Could a bird have sat on the bell string and caused it to ring? Could a mouse have run across the string? The string extended outside the house—were the neighbourhood children playing a prank on him? He examined all these possibilities, but could not solve the mystery.

This ringing of the bells continued from 2 February 1834 to 27 March 1834. They would ring three to five times, making the grandfather clock and the Major's trunk shake violently. When Moor himself tried pulling the strings, the bells would ring but the clock and the trunk would not shake.

Moor published an article narrating his experience in the newspaper, soliciting solutions. Soon afterwards, he was startled to receive letters from every corner of the country. Shockingly, it appeared that similar incidents had been occurring all over England.

Moor continued to gather information about the phenomenon till 1841, that is, over a period of seven years. He then collated his findings and published a book. Among the letters he had received after his article appeared in the newspaper, he mentions in his book, some were obviously lying about the incidents they described, and others talked about haunted houses which had nothing to do with bells, but there were at least thirty letters that were clearly genuine.

For many years, nobody could provide an adequate explanation for the strange phenomenon of the bells. It remained England's 'black magic' mystery.

Eighty years later, the First World War began. In a port called Greenock in Scotland, there are many old homes with bells hanging from their ceilings. Around the time the war began,

these bells started ringing on their own in the middle of the night. The locals were terrified. Britain couldn't afford such mysteries in wartime, and orders were issued to find the cause of the ringing bells.

What was discovered?

Submarine factories had recently been set up in Greenock. At night, the diesel engines manufactured for the submarines were tested in the factories. All the engines would be run at once, and the great vibration produced as a result would make the bells in the old houses ring. And thus, the black magic had begun.

The black magic was eventually explained, but it took eighty years. From 1834 to 1914, the answer had remained elusive. The question is, what do we do in such situations? Should we stamp these incidents as black magic, or should we strive to find the answer? Shouldn't we say 'seek and ye shall find', and keep trying to move forward?

An experiment with snakes, and with the self

Man has among the biggest and most developed brains of all animals, and snakes have really small brains. Yet the superstitious notions man has about snakes puts all other superstitions to shame.

Snakes hold grudges.
Snakes drink milk, and have hairy bodies.
The king of snakes has a gem in his forehead.
Snakes protect wealth.
If you write 'believer' on the walls of your house, snakes will not enter it.
Snakebites are a form of punishment for your sins.
The chanting of mantras helps counter snake venom.

It is estimated that nearly 30,000 people die of snakebite in India every year. Many of them are probably subjected to mantras before they end up seeing a real doctor. Because the mantras don't work, it is too late when they reach a doctor, and then they cannot escape death.

But how do we convince people not to subscribe to such beliefs?

In order to train people to think for themselves, sometimes we need to open their eyes with a demonstration. The incident that I will recount here, from the work of the anti-superstition movement, is a case in point.

Payappachi Wadi is a small village in Miraj. The people in this village were largely protected from snakebites. The reason was simple. The people would take the soil from around the temple, mix it with some ash the priest gave them, and draw a line around their houses with this mixture while chanting a mantra. Snakes could not cross this line. The odd brave snake that tried would flail painfully and immediately turn tail.

There was a Tayappa temple in the village. Whenever someone in the village or its surrounding areas was bitten by a snake, they would be brought to this temple. The people believed that drinking lemon juice in the temple and walking around it would cure the snakebite.

Then, something unanticipated happened. Two villagers died of snakebite in a single month. Mrs Chavan was bitten when she was working in the fields. She ran two kilometres to the temple. The priest gave her the lemon juice, chanted his mantras and made her walk around the temple. Before the second revolution was over, she dropped dead. Mr Salunkhe was bitten during his afternoon siesta. He, too, was taken to the temple, and after the remedies failed, to the crematorium.

Our activist in a neighbouring village, Dr D.S. Yakkaldevi, knew a great deal about snakes. He tried explaining to the people how snakebites worked, but to no avail. They were certain that their God cured snakebites. The argument that many victims survived because most snakes are not venomous seemed to them like an insult to their God. They did not think that the death of two people was anything to lose sleep over. What could the priest do if fate itself was determined to take those lives?

Our Salgare branch decided to hold a wonderful demonstration on snakes in Payappachi Wadi. After alighting from the bus, they walked two kilometres in heavy rain. Despite the weather, around five hundred enthusiastic people from this small village showed up at the programme. There were no speakers, but soon heated discussions and arguments were under way. The villagers were adamant in their belief that the mixture of temple soil and ash worked, that snakes which tried to cross

this barrier would thrash about in pain. And they had complete faith in the mantras and the priests who chanted them.

How then could the discussions move forward?

One activist thought up an experiment. He asked the locals: would snakes be able to slither out of a ring made of the soil and ash mixture, or would they thrash about inside? The villagers were absolutely certain that the snakes would not be able to leave the ring.

The Salgare branch had their own collection of snakes. They had brought along about a dozen, venomous and non-venomous. And so both varieties were subjected to this practical test. The priest brought two buckets of sand himself. He mixed it with ash and made the ring himself. The activists said, 'Your soil, your devotees, your temple, your priest, only the snakes are ours. We will release them into the ring. Judge for yourself.'

The villagers were dying of suspense. The activists took ten snakes out of their bags and gently released them into the ring. The slithering creatures did not stay in the ring for even a moment. They glided out in all directions without so much as noticing the soil-ash mixture. The activists managed to recapture them with great skill.

The villagers were shocked for a few moments; then they applauded the experiment deafeningly. Afterwards, there were discussions about venomous and non-venomous snakes. Remedies for snakebite were explained. Doubts were cleared.

It was as if the rain had washed away the people's superstitions. Nowadays, in Pappayachi Wadi, even the priest sends snakebite cases straight to the doctor.

The refrigerated Ganpati

There are many incarnations of God. He is self-manifested and all-powerful. But He shows Himself to us poor mortals. He can appear through pillars, stones, even fruit.

All this grand-sounding hubbub around manifestations helps us conveniently forget what the saints told us: God is found not in the holy places, nor in stones; he resides in people.

Should one necessarily oppose such beliefs and practices? What harm does it cause if one prays to pillars? What is wrong if one folds hands in front of a fruit?

It does cause harm and it is wrong. For this is not just supplication before God. It is a celebration of our blindness. It is the worship of our mental slavery.

There is a village called Ambhori in Parbhani, Maharashtra. Not far from the village, Gyanbarav Satav has his fields, and on his property is a very old tree that the villagers have christened the Rishi Tree. The people firmly believe that the tree speaks, and particularly that it spoke to H.B. Gangamaharaj from Pusad. In 1993, some villagers took the initiative to organise a reading of the *Dnyaneshwari* under the tree. It was a huge success. Eight to ten thousand people gathered and were fed at the site. Rumours about the tree spread far and wide, even making their way to the neighbouring state of Andhra Pradesh.

A couple who had been childless for sixteen years managed to have one after paying a visit to the tree. Broken marriages healed, a crippled person started walking, blind pilgrims could see again and mute devotees began to speak…

No one knew who the beneficiaries of these miracles really were. Nevertheless, the crowds of ailing people at the site grew. From stomach ache to heart problems, from pain in the joints to leprosy, they came to the tree for relief from all sorts of ailments. A pilgrimage to the Rishi Tree now took place every Monday. A fence was built around the tree. A prayer stone was set at its base. A donation box appeared right next to it.

The local Congress MLA arranged for two tankers to supply water to the pilgrims. Then how could Hingoli's BJP MLA, Baliram Patil, be left behind? He hurried to Ambhori and prayed profusely to the tree. The transport department started a regular bus service especially for the pilgrims from the towns nearby. Several transport agencies minted money by running jeep and truck services in the area. It took only a few days for the tree to develop a reputation for undoing black magic and warding off spirits.

What was the reality? What did botanists think of the Rishi Tree? According to experts at Science College, Nanded, this was a rudraksh tree. It has delicate flowers, and is not commonly found in Marathwada. The fact that the tree was a rare specimen of its type in the region must have spawned some of the superstitions around it. There are no miracles in the world and definitely none caused by trees.

The emotional health of people is affected greatly by poverty, illiteracy, malnutrition and disease. It is possible to treat such conditions, and the anti-superstition movement's psychiatrists provide free treatment. All the diseases that people bring to the Rishi Tree have causes. If we identify these causes, we can cure these diseases. But superstition on the one hand, and destitution and ignorance on the other, make understanding and affording cures for such disorders very difficult for common people. Making rounds of the Rishi Tree is quite a lot easier.

Pilgrimages which involve visits to godmen, quacks and trees thrive on rumours. It is true that these pilgrimages provide temporary relief, but the causes of people's distress are concrete, mental and physical, rather than supernatural. Sometimes, when a person believes in a cure, they find relief in it. However, generalising this sort of individual experience to miraculous powers has little basis in truth. Naturally, this creates opportunities for some people to do roaring business, and these vested interests in turn keep the superstition alive.

Parbhani's district collector, S.S. Sandhu, is to be credited with ending the Rishi Tree scam. When he got wind of the superstition, he called a meeting with Ambhori's panchayat members, its head of police, and the owner of the field where the Rishi Tree stood, and reprimanded them. Then the police officer and the sarpanch appealed to the people to not deify the tree, stating that it had no magical powers, including the capacity to cure diseases. The district collector also publicly criticised the belief. *Lokpatra* , a leading daily in Nanded, arranged for a scientific analysis of the tree. Thus, the miracle tree was converted back to an ordinary tree.

But these exposés do not work every time. We are so fascinated by miracles that even the God of knowledge, Ganesha, hasn't taught his disciples to stop pursuing them. This is amply illustrated by an incident that took place in 1993. The festival of Ganeshotsav had just concluded. In Gadhingal village in Kolhapur, Mr Kurade's daughter brought a papaya home from the market and cut it open. Wonder of wonders: it turned out there was an image of Ganesha inside the fruit! One could clearly make out the trunk, the crown and the belly of the elephant-headed God. Mrs Kurade showed the papaya to her neighbours. Everyone bowed before the image. An enthusiastic devotee

poked holes for the eyes, and even drew a trident in the trunk, thus consolidating its divinity. Before one knew it, there were long lines of people outside the Kurades' house. Men and women, young and old, all queued up for a glimpse of the Ganesha in the papaya. They said to each other: this papaya, unlike the normal fruit, has not a single seed but an image of Ganesha. If this is not a miracle, what is?

When the crowd became unruly, the miracle fruit was installed at a crossing in the middle of the village. The Satyanarayana puja was performed and sweets were distributed. Showers of donated coins fell incessantly around the papaya.

The local arm of the anti-superstition movement raised objections to this practice on scientific grounds. In retaliation, posters condemning the movement were put up in the village. But this backlash would not succeed in masking the truth.

What was the truth? Seedless varieties of various fruits have been developed, and are now commonly available. The Ganesha papaya was one such. One of its seeds had antipodal cells that grew extensively instead of splitting. Hence, the Ganesha-like form inside the fruit. It has been noticed that sometimes this growth can resemble the fangs of a snake as well. Interestingly, the picture of this phenomenon in botany textbooks looks exactly like our Ganesha papaya. However, these scientific explanations did not convince its devotees. The papaya continued to be worshipped. And, every night, it was picked up and deposited in a refrigerator.

Golmal hai bhai

One of the earnest letters I received went like this:

'I am writing this letter to you because I know you are staunchly against astrology. However, astrology is much more difficult than astronomy. You can call all astrologers fake, but they have studied the effect of different planets on the earth and predicted a terribly unlucky time for the earth from 1991 to 2000. This means that in this period the earth will be struck by natural disasters at a much higher frequency than in any other decade. These include volcanic eruptions, earthquakes, floods, battles, wars and small skirmishes, and frequent air and rail accidents.

‘If you have been reading the newspapers for the last 6 to 7 months, you will realise that this is true. Nevertheless, we will know the truth only after the remaining 9–9.5 months have elapsed. It would be nice if you wrote an article with your assessment of this prediction and published it, so we can evaluate your article in the year 2000. Please let me know when and where you will publish this article.’

It is easy to characterise this sort of letter as a product of innocent ignorance. Still, there has to be some basis, however flimsy, for the writer’s faith. What is that basis? Does it take an astrologer to tell us that many countries will face small skirmishes, battles and wars in the near future?

Consider the following statements:

There will be political instability in India in the coming decade.

Germany and Japan will become powerful players on the world stage.

Pollution will grow, and violence will be stoked around environmental issues.

Couldn’t anyone who reads newspapers make these predictions? Wouldn’t they have a reasonable chance of being proven right? If the discipline of astrology is seeking credibility as a science of prediction, it needs to tell us where the earthquakes will take place, on what scale of intensity, and on which dates. It needs to tell us which planetary movements have led them to arrive at these conclusions. Will their calculations hold true not only for this decade, but also for the coming century?

These days there are set principles for assessing whether a claim is scientifically sound. How should information be gathered? How should it be organised? How should one make inferences from data? These questions have led to the formulation of refined methodologies in scientific research. How has astrology, that two-thousand-year-old field of study, engaged with these questions? How has it advanced our understanding of these questions?

In reality, it would be incredibly easy to test the veracity of astrological predictions. Ask a set of astrologers to make predictions about a hundred newborns, answering some important questions: how far will they advance in their studies?

What will their professions be? When will they marry? Will they make a lot of money? Will they have accidents? Then, keep track of these children as they grow up, and note down what actually happens in their lives. Collecting this data for a hundred children would require resources, of course, but surely this won't be a problem for astrologers who charge in the thousands for a reading of the charts. Even if they claim the undertaking is too expensive, the anti-superstition movement is ready to pay for this experiment. After all, what is a fifty-year-long experiment to a two-thousand-year-old field of knowledge?

I am certain that no astrologers will take this challenge up, and even if they do, they will make predictions as follows:

How much will the child study? As much as is required.

What about her job? It is unlikely that it will be satisfactory.

His marriage? At the appropriate time.

Children? They will have offspring if the influence of unlucky planets is curbed.

Accidents? There is a likelihood of small or big accidents happening.

Tell me: is there much difference between the predictions above and the prediction that there will be volcanic eruptions, earthquakes, floods and battles in some part of the world in the coming decade?

Do you remember the popular song *Golmal hai bhai sab golmal hai* ?

Death in the horoscope

The All India Astrology Association had convened a seminar in Pune. More than five hundred people from all over India were in attendance. Speech after speech was made about how astrology was accurate and meaningful. The famous gynaecologist Dr Purandare spoke about the astrology of health. The opinion that astrology was a science was asserted several times.

A small pamphlet published by the anti-superstition movement burst that balloon. The challenge we proposed was simple and straightforward.

A few astrologers would have to pass a small test. We would give them two sets of ten birth times, accurate to the second. They would be required to prepare the horoscopes of these

people. In the first set, they would have to identify which subjects were men and which were women. In the second set, they would have to identify which persons were alive and which were dead. If they got the results right, we would accept our defeat and pay them ₹ 1 lakh. And the anti-superstition movement would cease its activities against astrologers.

Actually, this challenge is not a new one. Dr Abraham Kovoor proposed it twenty years ago. We have just actively re-proposed it in Maharashtra.

Not one astrologer took this easy opportunity to prove that astrology is a science. Instead, they found an honest (?) escape route. They published an advertisement in the newspaper, the gist of which was this: astrology is a science, but not completely. It has limitations. Among them, the fact that horoscopes cannot identify the sex of the person in question, nor reveal whether the person is alive or dead.

Despite the honesty of this proclamation, did you notice its complete lack of substance? We must consider the reality that a child's gender determines several life-shaping choices and decisions. In a country like India, a male child is exempt from innumerable cruelties a female child is made to suffer. In other words, a child's gender significantly affects all predictions about her or his behaviour, education and opportunities. Isn't the muteness of astrologers on such an important determinant of life not evidence of their weak footing? Speaking of the second component of the challenge, death is an important part of life. When a person dies, their future effectively ends. If astrology cannot even tell if there remains a future to be predicted or not, how can we call it a science?

Eventually, we increased the challenge reward from ₹ 1 lakh to ₹ 2 lakh, and the debate was revived. We published an advertisement in an English newspaper. The challenge was also mentioned in my interview with the reputed magazine *Science Today* .

A Narendra Shah from Santa Cruz, Mumbai, wrote to me around that time. He expressed deep regret that I was unaware of the advanced scientific nature of astrology. He was prepared to identify the gender of persons through their horoscopes, and confident that he would be able to reveal whether they were dead or alive. I explained to him the procedure for participating

in the challenge and asked him to deposit ₹ 2,000 as security.

He responded, saying that he simply wanted to prove the scientific nature of astrology, and was not interested in challenges and counter-challenges. Nor was he interested in paying any kind of security deposit.

I accepted this breach of procedure and sent him the two sets of birth times, telling him that he could take all the time he needed. I had the answers in a sealed envelope, and told him I would break the seal in front of him when he brought me his results. Things would be resolved there and then.

Narendra Shah enthusiastically promised he would determine the answers within a month. Two months later, he wrote to me asking for some more time, citing a family emergency as the reason for the delay. I readily extended the time limit. He missed his deadline again. I received another letter about another family emergency and granted another extension. It has been six months since that deadline elapsed. My envelope of answers is still sealed.

Some wonder: what is the point of these challenges and counter-challenges? They say we come up with these experiments because we are bored and lack a pastime. People consult astrologers for fun, they tell us, and then forget about it. But I don't think things are that benign. I think the matter is very serious. What is Narendra Shah really saying when he claims he can determine gender and life or death through horoscopes?

A horoscope is a map of the planets at the time you were born. If someone can divine whether you are dead or alive through this map, it means that your time of death was set the moment you were born. It means that astrologers are simply the means through which you discover what the Creator has already designed. Most of all, it means that your destiny is determined at the very moment of your birth. In this scenario, people are just puppets in a play. The director is invisible but his will can be made visible through horoscopes.

Thus, in a single stroke, astrology divests people of any form of free will. It denies human potential and capability, and puts untruth on a pedestal. Over the last few decades, healthcare in our country has improved dramatically. The life expectancy of Indians has doubled. People whose horoscopes predicted (on average) a life expectancy in the thirties about forty years ago

are now in their fifties. All this happened regardless of destiny; times of death in horoscopes changed rapidly. Because the absolute truth is this: make yourself so strong that before every turn of fortune, God himself asks you what you wish for yourself.

An award that takes us back 150 years

The Indian Science Congress Association (ISCA) is the apex institution for scientists in India. It has been in existence for the past sixty-five or sixty-six years. Every year they organise a conference. Scientists from all branches of science attend the conference in the thousands. Every year, without fail, the prime minister inaugurates the conference.

In 1993, the annual conference was held from 3–8 January in Panaji, Goa. I was invited to speak on Science and Miracles. But I did not understand the point. It was ridiculous to have to explain to renowned scientists how rings are conjured from thin air, how holy men swallow fire, or what happens when we think people are possessed. However, I was interested in this opportunity for a different reason. I wrote to them:

> I do not understand your choice of audience for this talk. Talented scientists do not need to be told about how holy men and women use chemicals, mechanical trickery and sleight of hand to perform miracles. It is neither appropriate nor necessary to do this. If these demonstrations of miracles are to be performed in front of the local population, you do not need me for this. Our movement has performed such demonstrations at thousands of places and there are many qualified activists you can invite to do this. I want to draw your attention towards something else.
>
> Plenty of unscientific practices are now ruling the roost in the world. Things are proceeding under the assumption that astrology is a science. The poor masses will be somewhat wiser after the exposure of so-called miracles, but several highly educated people will continue to believe in them. They might believe that, though it is possible to repeat these miracles scientifically, a holy man does it through divine powers;

> hence, it is best to bow before these holy men. Our Constitution includes the principle of developing scientific temper and the spirit of reform. Will a national organisation like the Indian Science Congress Association uphold this principle? Will it denounce astrology and faked miracles? Will it ask the populace to stay away from them?

Naturally, I received no response. But the actual answer was given during the conference, showing us exactly where ISCA stood on such matters.

Every year, the prestigious Raj Kristo Dutt award is given out during the conference. The award was a cash prize of ₹ 10,000 and the awardee was expected to make a speech about his work and its relevance to the world. This year it was awarded to a Mr Bhandari.

Who was he? What had he done?

Mr Bhandari, a chartered accountant from Kolkata, was also the head of the Occult Knowledge Foundation. His speech was about the scientific basis of astrology, based on special research into the impact of planetary movements on human life.

Who gave the award? The head of the Science Congress that year, a member of the organising committee, and the leader of India's first expedition to Antarctica, S.Z. Kasim. He cannot be absolved of this responsibility, because this particular award is decided not by a committee, but by the head himself.

What's remarkable is that in the ISCA's 1992–93 booklet, detailing the range of subjects the organisation is concerned with, the topic of astrology does not even appear.

Our society is resilient and generous. We are experts at overlooking such things. It is consoling to know that at least the Tata Institute of Fundamental Research (TIFR) and the Inter-Universe Centre for Astronomy and Astrophysics (IUCAA) raised protests against the ISCA's choice of awardee on this occasion. TIFR released a circular condemning this award. Around 170 renowned scientists signed it. The document drew attention to the official promotion of unscientific practices through such awards.

The import of these scientists' message to the head of the ISCA was this: it was shocking that an organisation as important

as this, one that received funding from the central government, would give an award to an astrologer. Astrology has no scientific basis; its methods of inquiry are completely unscientific. No scientific organisation in the world has ever extended its approval to this field of study, and nothing had changed in the scientific world recently to warrant such an award.

Prominent scientist Dr S. Mukhi brought to light another serious issue. His point was that the government severely underfunds some very important areas of scientific inquiry. For instance, it allocated only ₹ 1 lakh for a national conference attended by two hundred scientists on high energy physics, a very important field of study within atomic energy. And conferences such as the Indian Science Congress are conducted with pomp and show, as if it was a lavish paid holiday. Thus our limited funds are extravagantly spent on ordinary work, while higher levels of research remain underfunded. The award for astrology was but a terrible symptom of this disease.

There is no reason to discuss here why astrology is not a science. Why don't the simple questions, the ones that Maharshi Phule asked us nearly 150 years ago, strike us now? Phule asked how did the Peshwas lose to the British despite fighting every battle during the auspicious hours? How do our sisters become widows when their horoscopes matched perfectly with those of their husbands, and how do the British women's households run smoothly when no astrologers were consulted prior to their marriages?

Maharshi Phule's reasoning was clear. The outcomes of battles depend on the capabilities of generals and the strength of soldiers, not on the stars and planets. Marrying at a very early age, combined with a high child mortality rate, will trump any number of perfect horoscope matches. After 150 years, are we still headed in the same direction?

'Occult knowledge' includes topics such as witchcraft, ghosts, black magic, curses and so on. A chartered accountant sets up an organisation to research these fields of knowledge and writes a paper on astrology; we give him a prestigious award. Is this progress, or are we regressing?

Often, in Indian society, our role models lead us in these ignorant beliefs and practices. On 23 January 1993, a report in the *Indian Express* proclaimed that something unusual had

happened during Prime Minister Narasimha Rao's cabinet reshuffle. The protocol for the swearing-in ceremony at Rashtrapati Bhavan is such that it takes place before the flag is lowered at sunset. This time though, the ceremony took place at 7 p.m., after the flag was lowered. Why?

The ceremony could easily have taken place between 4 and 6 p.m., after the Sri Lankan delegation had left. But on that day, 4.30 to 6 p.m., was an inauspicious time, being under the influence of the planet rahu. How could ministers be sworn in at such a time?

Rahu and ketu are invisible planets in the solar system, so astrologers say. In reality, no such planets exist. In other words, protocol was broken at Rashtrapati Bhavan for the sake of non-existent planets. What does this behaviour of our highest public figures, prime ministers and the presidents, signal? The logical conclusion is that we shouldn't restrict the use of horoscopes to marriages. Hospitals ought to hire astrologists, all the better to find auspicious times for attaching a saline drip or scheduling surgeries. School authorities, parents and students worry about exam results. Why not fill exam forms at auspicious times, as some candidates have been known to do with election forms? Air travel can be dangerous—sometimes planes crash, or get hijacked. The civil aviation ministry ought to induct astrologists to determine auspicious take-off times.

There is no reason to worry about astrologers being in short supply. The All India Astrology Association is petitioning for the introduction of astrology as a school subject. Forty per cent of our country's primary schools have only one teacher. Never mind whether even a single teacher can be found for each school to teach all the other subjects; the government should definitely spend crores of rupees on hiring astrology teachers. And suppose we go to war with Pakistan tomorrow, who should make the crucial decisions—the chief of army staff or an astrologer? What if the astrologer's views contradict military strategy? Should the army go ahead with a devil-may-care attitude, or should it worry about the stars and just defer to the astrologer's expert opinion?

Most importantly, how does one draw a national horoscope? When was the nation born? On 15 August 1947, India became independent. But the country has existed for thousands of years before that. What then is the nation's time of birth?

These questions lead us to nothing but chaos.

But if the country's scientists, presidents and prime ministers are going to continue on this route, this chaos will increase a hundredfold. Funds intended for scientific research could be diverted to the study of 'occult sciences'. Taxpayers' hard-earned money, meant to be invested in education, could find its way into astrologers' purses. Important decisions affecting individual citizens as well as the nation could be influenced by charlatans.

The fundamental duties listed by the Indian Constitution include the exhortation to cultivate a scientific temper. What does this mean? Simply put, it means that we must use specific methods of testing observed phenomena and draw conclusions from them. True, all questions are not answered easily. One must keep looking for answers, but one's inquiry must be based on proven concepts. Astrology has no place in any of this; its claims and methods are inimical to the principles of scientific enquiry upheld by the Constitution. Mr Kasim ought to take back the award he gave to Mr Bhandari. In fact, he ought to resign. But whom can we petition to make this happen? The prime minister? He might meet Satya Sai Baba at an auspicious time and ask for his counsel. The president will simply go along.

Which way is our beloved nation heading in this age of science?

At least pay attention to me now!

'Doctor, I believe it because it saw it with my own eyes. My daughter was fine when she went to sleep at night, but when she woke up, one side of her body was completely paralysed. The village doctor examined her, gave her medicines and poked her with injections. We even massaged her limbs, but nothing worked. She was a healthy girl, married just four months ago. But we couldn't heal her. Then we took her to a holy man who waved some incense over her. He did this for three days, and on the third day he ran his hand across her forehead and said, get up, child. Wonder of wonders, our daughter got up and even started walking! She was completely fine. It was a miracle.'

I knew it wasn't a miracle because I had seen a similar case when I was a medical student. This girl, too, had been recently married, and was overcome by sudden paralysis. She was

brought to the mission hospital. The noted psychiatrist Dr Debasikdar was on our faculty back then. He examined her, and identified the mental trouble lurking behind the apparent physical ailment.

What had happened? The girl had been in love with a boy, but her parents married her off to another man. She was extremely agitated, but couldn't express her feelings. Nor could she avoid sexual relations with her husband. When the body had to comply, the mind rebelled. Then, the body followed. It took the form of a paralytic attack. This allowed her to avoid having sex with her husband. Her paralysis was a (temporary) physical invention, born of a mental malady. The doctor understood, and reasoned with her. She calmed down and changed her mind, recovered her strength and went home to resume a normal life.

Any holy man or woman could have given the girl the same strength, with incense or with words. But then, stories of the holy man or woman's wondrous abilities would have spread far and wide. The incident would eventually be regarded as a miracle.

Not everything in life happens according to our wishes. Some people don't get enough affection. People at home or at work can be dismissive. Things don't go according to plan. Sometimes we are surrounded by hatred. All this slowly starts affecting our minds. We start feeling distressed, and wonder if something is wrong with us. People who go through such phases in their lives become miserable. They yearn for some affection. They start wondering about the easiest way to get their family members to pay attention to them. A physical ailment almost guarantees attention, and so their mind instructs their body to fall ill. And since the mind and body are closely related, the body obeys.

The case of a woman called Sudha is illustrative. Sudha's husband quit his job in Mumbai and moved to his village with her. She had to leave all the comforts of city life behind and get adjusted to life with her in-laws. Although she was a docile woman, try as she might, she could not get along with her devious mother-in-law. Her husband often took his mother's side and lost his temper at her frequently.

During Ganesh Chaturthi, a lot of guests had come over. The mother-in-law saddled Sudha with tons of work. The young

woman had a sudden seizure and collapsed. She hadn't hurt herself, but her jaw was locked. For about fifteen or twenty minutes, she flailed her limbs. A few women held her. Someone asked her to smell an onion. Someone else sprinkled water on her face. Slowly she came back to her senses. Everyone kindly asked her how she was feeling. Before the visitors left, they told her mother-in-law to take care of her. She stayed in bed for two days after this incident.

Everyone, including Sudha herself, believed she had had a seizure. But that was not true. In a way, although she was hardly conscious of it, Sudha was pretending. When a person has a seizure, sudden falls hurt them badly. Their tongue can get bitten really hard in a locked jaw. During loss of consciousness induced by a seizure, people often do not even realise that they have urinated. The absence of these factors indicate the fact that Sudha had not had a real seizure. But there is no point in blaming Sudha. She had not done this deliberately. Her troubled and helpless mind had compelled her body. She continued having 'seizures' almost every other fortnight after that.

Such physical ailments which reflect mental distress are called hysterical conversions. These are more commonly found in women, but men have been known to exhibit such symptoms, too, including paralysis, blindness and lameness.

Thoughts and emotions that begin in the mind are expressed not only in words but also through physical gestures. We raise our eyebrows to ask a question. We shrug our shoulders. We frown when we are upset. We shake with anger. Hysterical conversion is a similar physical expression of mental trauma. These patients try to suppress unpleasant thoughts and sadness, but these feelings find a physical manifestation. People become mute despite there being no injury to their tongue or vocal chords. They go blind although their eyes have not been affected in any way. They faint, as someone with a head injury might, for no perceptible reason.

In the past centuries, cases of hysteria were very common in the West. They are less frequently documented today, largely due to the wide reach of education and social reform in those parts of the world. Even in India, this ailment is noticeably rare among the educated classes. It is a rather roundabout way of expressing grief, seen most often in the most oppressed women and

children. For most women in India, everyday life is an unending struggle. Denial of education to women, backward and superstitious thinking around their concerns, and male dominance ensure that they are always dependent. Underprivileged women rarely have resources to protest openly against injustice. In fact, protesting doesn't even strike them as an option. Under such circumstances, their problems find a different expression. Sometimes they are convenient means of revenge, but in the majority of cases they are just pleas for attention.

Distressed patients learn these defence mechanisms pretty quickly, and so the symptoms recur more often than not. Their relatives start believing that the ailments are supernatural when repeated doctors' visits don't cure them. It is regrettable, but true, that some incompetent doctors also help feed this narrative. Thus, holy men and women find great business opportunities in hysterical ailments.

This is not simply an issue of superstition. These cases can only be tackled by social reform, including respect and rights for women, and creating a safe and conducive environment for speaking freely within the family. With these changes, people will start using wiser methods to resolve their issues. But to make this happen, we need everyone to contribute.

Hallucinatory bubbles

While working to eradicate superstition, we are constantly asked: are the people who have claimed to see the truth lying? The saints have seen God. It is believed that God even spoke to Ramakrishna Paramahansa. Are these people speaking the truth?

There is no doubt that these people are honest. Saints cannot lie. But then what happens?

Let us deal with the cheats and charlatans first. Every village has a fraud who says that God talks to them and uses this to their own advantage. Scrape the godly surface just a little, and you will see their duplicity. But some other instances are different. Sometimes it is a case of mental instability or of prolonged self-deception.

Vandana's tenth class exams were around the corner when she heard a voice in her head say clearly: 'Vandana, why are you

writing this exam? You're going to fail anyway!' Despite her parents' ministrations, Vandana could not write the exams. A friend suggested she ought to join sewing lessons with her, to make better use of her time. Again, the voice in her head said: 'Vandana, you won't be able to sew.' Five or six months later, her uncle found a nice boy for her to marry. But again the voice said: 'You are going to get rejected.' Vandana asked her uncle not to call the boy over. The voice said: 'Well done!'

Vandana's parents tried all sorts of home remedies. None of them worked; the voice in their daughter's head wouldn't go away.

Hema's school was two miles away from her house. She used to walk to and from school alone. Once, on her way to school, she saw an old woman with loose hair beckoning to her. Hema was scared and ran back home. She was afraid to go to school now. One day, she mustered the courage to attempt the walk, and saw the old woman again. After this, even her parents were afraid of sending her to school.

Mrs Gokhale was leading a happy married life. She had three children, and her husband had a good job. Suddenly, she started perceiving a shadow following her around the house. Soon, the shadow had a face and she could even see its green saree. One day, it spoke to her: 'I am the head of the Jhansi household. You were Rani Laxmibai in your previous birth and you died without completing my last rites. At least perform them now!' Mrs Gokhale then began to recall her past life in great detail. She started recounting incidents from her previous birth on the one hand and performing various rites on the other.

What was the voice in Vandana's head? Who was the old woman Hema saw, or the one who followed Mrs. Gokhale around? All these experiences are very real for the people experiencing them, and yet they are not ghosts or spirits. They are hallucinations which occur as a result of serious self-deception.

How do hallucinations occur?

There is a mechanism in the brain of a healthy person which enables hearing. When someone whistles in the distance, sound waves travel through the air. These waves reach the eardrum and make it vibrate. This vibration is then transformed into a small electrical signal. A nerve in the ear sends this message to the

brain, where it is converted again to sound. The most amazing thing about the brain in this process is that, even though the sound is actually generated at the eardrum, it recognises that the origin of the sound is the person who whistled in the distance.

Hallucinations experienced by people who suffer from schizophrenia and certain other mental illnesses are not too far from such normal functions of the brain. Only, in these cases, there are glitches in the brain's interpretation of sense-signals. This can happen due to extreme stress or deficiencies in the chemicals that the human brain needs to work well. But because of the peculiar functioning of the brain that we talked about, it appears as if the hallucinatory sounds and images originate outside our bodies. This is why some patients think people around them, or even far away, are talking about them. They hear voices whispering in their head, see people that aren't really there. No amount of explaining, scolding, threats or beatings can make these patients change their minds.

But these hallucinations aren't always caused by problems in the brain. They can be a result of prolonged self-deception as well. There is nothing extraordinary about self-deception either. It is a state of mind, just like sleep, consciousness, unconsciousness or dreams. The distinguishing trait of this state of mind is that it generates illusions. Prolonged states of self-deception can make people think that bitter gourd tastes like chocolate, or that petroleum smells like perfume; it can makes them feel as if there are ants crawling all over their bodies. Sometimes they see God, too, and then they proceed to prostrate themselves in front of the imagined deity. Later, they recount their experience in detail.

Self-deception is a sort of trance. The only difference is that this kind of trance follows instructions. The person experiences things as they are instructed to. These instructions don't have to come from other people; such a person can instruct themselves just as well.

A sensitive person can enter a state of illusion that produces 'divine visions' due to various stimulants: devotional songs, beautiful temple lighting or the proximity of other devotees lost in song and prayer. The effect is compounded when all these factors are present together. The determination to 'see God', the chanting of mantras or the name of the deity, and fasting, can

also induce these illusions.

Humans have understood these phenomena only recently, in this century. Earlier, it was believed that just as water is found in several places but only the seas and oceans have tides, only a few remarkable people can see God in moments when their minds overflow. That person would then spread the truth. All this is but natural.

No one thought to ask, how does the Almighty Creator that shows Himself to these people look exactly like a man? He ought not to look human at all. In fact, in these illusions, God could look nothing but human. But we couldn't think to question this before a saint told us that it was man who created God. And in truth, why do we revere Swami Vivekananda and others like him? Because God showed Himself to them? I don't think so. In Vivekananda's own words, 'It's all right if not a single god is worshipped in this nation in the coming fifty years, but its poor need to be worshipped.' This lesson, that God is present in every poor and destitute person, is the one we need to learn. All the rest are hallucinatory bubbles.

What's sacrificed in our sacrificial fires?

If a son can be born through ritual prayer, what is the need for a husband? Three hundred years ago, Saint Tukaram asked this harsh, unlikeable and truly shocking question. But we have learnt nothing from it. Tukaram simply wanted us to think carefully about cause and effect. But our society has failed to do this even in the age of science.

In ancient times, man looked in wonder at nature and assumed that spirits controlled its working. He came up with rituals to please these spirits, and to ensure some gain for himself in the process. Sacrificial fires, or yajnas, were the most common variety. There were yajnas for acquiring sons, livestock, health and glory. Offerings were thrown into the fire to please various gods. The torture and killing of animals that was initially associated with the yajnas faded with time, but the ritual remains a primarily upper-caste undertaking. It helped above all to perpetuate the caste system—this is what history tells us.

According to the Bhagvad Gita, physical yajnas are inferior to mental yajnas; the *Mundaka Upanishad* called yajnas a leaky

boat; the *Aranyaka* and the *Brahmanas* said that mental effort was superior to grand horse sacrifices; Charvaka, Buddhist and Jain beliefs raised objections to such rituals. All this makes it unnecessary to explain here what yajnas are and what they aren't. Even if we ignore non-Vedic criticism, we cannot ignore the Upanishads' criticism of yajnas, for it certainly falls within the ambit of Vedic philosophy. The Upanishads opposed these rituals, proclaiming that their fruit was inferior to that of salvation.

None of this is hard to understand in this age of reason and science. But it is not easy to do away with these practices either, because the moment you question the concept of the yajna, you call into doubt the absolute superiority of the Vedas. The followers of the Vedas believe that they are the oldest, purest and holiest of holy books. They even assert that the crux of modern science is contained in the Vedas. And hence, before we can even enumerate our objections to these rituals, the tall claims begin: all answers can be found in the Vedas; whether you want a son or the welfare of the entire human race, the means to acquire them are in the Vedas, and so on.

And that is why a yajna to grant sons is performed in Kerala, a grand horse sacrifice is conducted in Nagpur and agnihotra rituals are recommended in households every day at sunrise and sunset.

Recently an ostentatious putrakameshthi yajna—a yajna which promises sons to devout supplicants—was performed in Kerala. All the rituals were led by eighty-year-old Vasudevan Akkithiripad. He was assisted by three head priests and a hundred other priests. A huge altar was constructed, thousands of cows were milked for tons of pure ghee, the best rice was procured and wood which produced the clearest flames was used for this sacrifice. The horse sacrifice performed in Nagpur in January 1994 was unparalleled. It was organised by the Vedmata Gayatri Trust based out of Haridwar and performed by Kalidas Sharma, a householder armed with an MTech degree and a determination to spend his life conducting yajnas. He claimed that he had performed this sacrifice successfully at least ten times before. As many as 2,008 couples participated in this ritual. Multiple altars were constructed to conduct various yajnas for throngs of devotees. The organisers claimed that three lakh

rituals were performed at each altar within four days. More than three lakh people participated every day. Twelve thousand tents were put up. In one instance, five thousand women were required to correctly execute a ritual. In actuality, so many women turned up that the ritual had to be modified. Flowers were air-dropped on the devotees.

The organisers of this yajna appealed for inoffensive behaviour. They rubbished the opinion that this was a revival of Brahminical traditions. In fact, they said, the father of these mantras was Valmiki himself, who was not a Brahmin. The sage had plucked the mantras from the heavens; the organisers were simply relaying them to the world. They insisted that ten of the sixteen head priests presiding over the rituals were not Brahmins.

As for the organisers of the putrakameshthi yajna in Kerala, they even claimed that this yajna was scientific. The couples who participated had to follow stringent physical and dietary rules. In fact, for a week before the yajna and three weeks after, a group of scientists and astrologers kept a close watch on all the couples to ensure the scientific conditions for the ritual were met with.

Even if the participants in the yajna were not eventually blessed with children, there would certainly be happiness, prosperity and peace in their lives. Why else would all sorts of people from around the world participate in the ritual, the organisers asked. The organisers of the horse sacrifice had even taller claims. The rite was touted as a panacea of sorts—for terrorism in Kashmir, Assam and Punjab, for religious strife and regionalism, for the paralysis of political will and, most importantly, the poverty of ‘nationalistic spirit’ among the people. By performing the yajna, the organisers wanted to awaken rationalism, sacrifice all forms of malpractice and ill-will, as the embodied in the ‘horse’, and revitalise our very culture.

In reality, which culture was revived?

What sort of great culture says life is pointless without a son? What sort of pure ritual throws good, plentiful rice and ghee into a fire. Both oral knowledge and memory of such rites have been historically monopolised by upper castes. What is the real intention behind pasting a social equality banner on such rituals? Is there a political motive, or are they simply fooling themselves? Yajnas are said to be either natural or distorted. When new

instructions or steps are incorporated in addition to the ones that are present in the religious canon, the yajna is said to be distorted. In the 'natural' form of the horse sacrifice, the queen has to lie with the dead horse. Is *this* not distorted, deformed? How are such practices even remotely related to God and culture?

Modern science has not been able to guarantee the conception of a male child. What is there in the putrakameshthi yajna, apart from religious imagination and rituals, that can guarantee the same?

It has now been two years since the yajna was performed in Kerala. No one has made a progress report on the couples that took part. As for the horse sacrifice, if civil unrest in the country has lessened in the country as a result of it, this is certainly not visible.

Charlatans are present in every culture and community. The saddening part is that people believe them. Leaving their common sense at home, they merrily follow these con men. How can people from the most literate state in India be so taken in by the notion of a putrakameshthi yajna? But people often look for solutions for modern problems in ancient holy books and get enraged when these practices are questioned. Needless to say, this sort of mentality creates fertile ground for communal politics. People lose sight of the real issues. Instead of encouraging rational thought, as the organisers of the Nagpur sacrifice claimed, such rituals spell the end of all thinking. Instead of accelerating progress, it speeds us towards destruction.

A special household edition of the yajna is the agnihotra ritual. Taken straight out of the Vedas, it is commonly performed in homes both in India and abroad. A story about the ritual goes like this: on Dussehra in 1944, when Sadguru Shri Gajanan Maharaj gave a sermon on the essence of the Vedas, he emphasised the practice of yajnas. Because yajnas affect everything from the atmosphere to the effectiveness of prayer, the Sadguru specified a simplified agnihotra ritual based on the *Rig Veda* .

The ritual is simple. Just take a three-legged copper or mud container and put a bit of cow dung in it. On top of that, place a wick dipped in ghee and light it. Precisely at sunrise and sunset, take two pinches of ghee-soaked rice and throw them into the

flame while chanting a few specific mantras. That's all! A small ritual with a large reward—the welfare of all humanity.

The ritual originated at the Institute for Vedic Studies at Akkalkot. Their magazine *Anadi* describes the miraculous effects of the ritual. These pieces are worth a read.

Apparently, the agnihotra must be performed exactly at sunrise and sunset; otherwise, it is ineffective. When the sun is rising, the atmosphere is charged with electricity. The agnihotra directs the energy of the solar system to the earth more intensely. During sunset, there is a dangerous proliferation of germs in the atmosphere. The agnihotra helps quell this menace.

Also, apparently, Russian scientists have discovered that cow dung offers protection from UV rays. Italian scientists have found that the mere smell of a cow keeps malaria-causing germs away. All harmful germs are destroyed because ghee made from cow's milk is used in the agnihotra ritual. If the ghee is made from any other milk, humanity is at risk.

It goes on: the confluence of ghee-soaked rice, ghee, cow dung and mantras at the precise times create certain vapours that reach high up into the atmosphere, cleaning impurities on their way down. Thus, the agnihotra is our most effective weapon against pollution.

And further: the ash from the ritual, when mixed with soil, leads to better and more bountiful harvests.

Which of these claims have been proven? How, when, where? How can claims so inimical to logic be considered scientific? Where is the proof that the atmosphere is charged with electricity during sunrise and teems with disease-causing germs at sunset? Which laboratory has verified that ghee made from cow's milk, and cow dung, have miraculous world-saving properties and that agnihotras which use buffalo milk could harm humanity? Which agricultural college teaches that crops grow better when fertilised by residual ashes from an agnihotra ritual? Where is the sense in burning good ghee and rice to increase a harvest magically?

Any burning reaction uses up oxygen and releases carbon dioxide. Naturally, this leads to an increase in pollution. How then does the burning in the agnihotra reaction lead to a decrease, and not an increase, in pollution?

Even if we assume that the ritual purifies the atmosphere,

how much of the atmosphere can such a tiny ritual, performed twice daily, purify? How can this be our most effective weapon against pollution? Why object to a joint experiment performed by the proponents and the critics of the agnihotra ritual?

These are not idle, free-floating thoughts. In the course of our movement, we have put these questions to the proponents of the agnihotra ritual. What is the response we get?

The answer is superficial, and steers clear of the arena of science. It is a question of faith, they say, and involves Vedic knowledge. Above all, the reaction is one of anger: how can these questions even be asked? How can the Vedas be challenged?

A seeker of truth often poses challenges. The truth is not harmed by this. It remains the truth. What is harmed is the unsubstantiated claim that a ritual can help conceive a son, achieve world peace and ensure environmental protection. Such claims need to be examined and questioned with powerful challenges.

Every Indian has the right to believe in and profess any faith. But people also have a right to pursue independent lines of thinking. What about that? Narhar Kurundakar puts it best: for true independence to take root in India, two things need to happen. One, we need to be tolerant. Two, we need to be responsible. Today our tolerance is, at best, a form of indifference to those who think differently from us. However, the real test of tolerance is when we encounter beliefs that directly attack our own. Too often, tolerance is perceived as a journey on a path where no one offends anyone and everyone supports everyone else's superstitions. This is not the right direction. Everyone ought to analyse everything rigorously, and no matter which religious sentiments are hurt by this analysis, the truth ought to be tolerated. The other side of independence is responsibility. Those who propose to examine certain beliefs or practices ought to bear the responsibility of not unnecessarily belittling, deliberately misinterpreting, wilfully falsifying or dismissing beliefs offhand.

We are sincerely and responsibly excited about this sort of truth-seeking. And we are waiting for the Veda-enthusiasts to come forward and meet us halfway.

There are only carrots and no sticks

'Why do you work so hard? What is the point? The businesses of holy men and quacks are running just as smoothly as before.'

'They're not just running smoothly; they're doing roaring business. They hoodwink people into parting with thousands of rupees. And let's not even talk about the time and effort that gets wasted because of them.'

'People are dumb—how do they get fooled by these tricksters?'

'You run an anti-superstition movement, don't you? Please come here; it's urgent. There's a holy man who has created a ruckus.'

These are just snippets of what we hear in the course of our work. Some people believe the movement is like a fire brigade, ready to douse flames of superstition wherever they arise. Others believe that we are wasting our time and our work has no impact whatsoever.

Almost everyone is angry that quacks and holy frauds loot people in broad daylight. It doesn't stop at money; sometimes people even lose their lives because of them.

For venomous snakebites or rabid dog bites that require injections, these charlatans prescribe random remedies. Women with mental illnesses are declared to be possessed and tied to ceilings by their hair, made to drink dirty water, or beaten with sticks in order to exorcise them.

There are babas that get rich by specialising in fake medicines to rid people of their glasses, even in big cities like Pune. A mysterious-looking holy man sells a purported medicine for all ills that is actually tiger urine from the zoo. And he plies his trade right next to Mahatma Phule's house.

A Mr Madhusudhan Patwardhan sells 25-paise agates for ₹ 25 each, claiming that they are destiny crystals newly invented by scientists. He sells lakhs of these stones and earns crores.

All sorts of cruel, inhuman practices take place in villages, and during processions and pilgrimages, unchecked. People get fleeced openly.

How far can the movement reach? How much awareness can we spread? Every district has its own flavour of superstition. Sometimes it makes us feel numb, at other times enraged.

Take the Elder Mother myth of Satara, for example.

Whenever someone develops a lump or a boil, or even has an infected wound, before anyone thinks of the doctor, the whispers start: we must please the Elder Mother.

Then a huge ceremony is organised. An altar is constructed; there is song and dance, and people are fed. Gifts are given to seven married women. Vermilion and turmeric is poured over the wound or boil. The festivities go on all night and no one gets any sleep. A problem that could be cured by spending ₹ 50 ends up costing the family two thousand. And naturally, it does not heal the wound.

More than that, it causes possible serious reasons for the wound or lump to be overlooked. Cancer and diabetes go undetected. People are not stupid, but they are emotional. There is an ascetic who threatens that going to the doctor instead of the Elder Mother means inviting the Mother's wrath. The patient and her family are scared. The people who perform the Mother rituals are imposing and induce fear. Besides, there are always superstitious neighbours and relatives around, to add fuel to the fire that ultimately consumes the patient. This practice is prevalent all over Satara district.

Is this not downright plunder of people's credulity and health? How much energy must we expend fighting such practices? Will it ever suffice? The type of superstition that wreaks havoc in people's lives differs from district to district. It is the exploitation that remains constant.

If someone is being looted right in front of me, I can try to stop it. But my real duty would be to report the incident to the police. The police should find the perpetrators and stop them. If the crime is on record, the miscreants can be punished.

In Indian society, innumerable cruel and inhuman crimes are committed because of superstition. In most instances, these crimes can even be anticipated. They are often recorded, too. Yet, the law cannot touch the perpetrators in some of these cases.

Because there is no law against superstition in our country today. We are fighting for such a law to be instituted, and failing. Willingness to give the shirt on one's back for the movement is necessary, but it is not enough.

How can you help?

Can you write to your local MLA and ask for such a law?

It is important to remember what Tukaram told us: evil must

be punished.

Photographing the life force

'But what about yoga?'

This question is asked often and incisively in Maharashtra. It is widely accepted that yoga is beneficial for physical and mental health. But the people who pose this question are thinking beyond yoga.

They want to ask, what about the kundalini? Or, is there truth in the techniques of Kirlian photography?

It is believed that there is a primal energy coiled at the base of a person's spine. This energy is awakened through meditation. It travels through six chakras to reach the brain, from where it exits, and then one attains the knowledge of the universe. This is, without a doubt, superstition. It has absolutely no basis in science.

The claims of Kirlian photography is even worse. Dr Swanand Ghatpande from Pune wrote an article about it in *Sakal* on 19 March 1989. It was titled, 'The torch of yogic knowledge is lit'. The article is an excellent example of how such information is presented in popular media. There are several writings about Kirlian photography that read just like this.

This is the context in which the article was written: Swami Satyanand Saraswati of the Bihar School of Yoga has taken the great work of Patanjali a step further. His ashram is spread over nearly three square miles on the banks of the Ganga in Munger, Bihar. People from all over the world lead an ascetic life in this ashram. Dr Ghatpande visited this ashram to attend a seminar on yogic cures for asthma and came across the concept of Kirlian photography.

He writes:

> A Swedish psychological genius (?) gave a very entertaining and informative talk about the developing science of the impact of physical and mental health on a person's aura. This technique has proven that every living thing has its own aura. Much before a person falls ill, there are indicative changes in this aura. According to yoga, this aura is a representation of a person's life

> force. A reduction in a person's life force causes her to fall ill and Kirlian photography can detect this reduction much before the illness. Hence we can use Kirlian photography to see if there is a reduction in life force and then use yoga to increase the life force again. After learning all this, I felt like all the trouble I went to, to attend the seminar, was worth it. I am deeply grateful to the organisation that introduced me to this knowledge.
>
> The Upanishads contain mysteries about food, life, the mind, science, and happiness. These mysteries are mysteries even today because of the backwardness of Indian research. Kirlian photography is humanity's first step to reveal the nature of these mysteries. The only unfortunate thing is that this step is being taken in Russia and not in India.

In *Saptahik Sakal* (16–22 March 1990), Balasaheb Dhopeshwarkar wrote in an article titled 'Photographing an invisible life force?': 'Materials scientists have made this discovery. But explaining the exact process of Kirlian photography will be difficult and heavy in these pages…to explain how it is proven through experiments will be too technical…'

What do the common people think when they read all this?

There is great—indeed, celestial—science that yoga is based on. We can see glimpses of it in the Upanishads. Foreign psychologists in countries like Russia are researching yoga. We will be able to see the truth that has been hidden from us soon—that, too, in the language of modern science! Really, don't the people who are blinded by the anti-superstition movement see this reality? Or are they deliberately ignoring it? Are they rejecting the legacy of our magnificent civilisation and culture?

Actually, none of these questions are relevant to the truth. Only that is true which can be tested. If it stands up to verification, it has to be accepted as valid. If it doesn't, it has to be rejected. Scientists tested Kirlian photography long ago. What did they find?

Arleen Watkins and William Bickel showed through experiments that the images obtained through Kirlian

photography have nothing to do with a person's mental or physical health. When an object is subjected to a high voltage electric current, they demonstrated, a coronal discharge is created around it. This is the Kirlian 'aura' that is captured photographically. The colour of the aura depends on the elements in the air, the level of atmospheric pressure, the method of photography and the voltage of the current. At a sufficiently high voltage, we perceive the coronal discharge as a hazy purplish-blue glow. Spectroscopists have studied similar phenomena for a long time.

Since the nature and colour of the glow depends on all sorts of external factors including the kind of equipment used, it is inaccurate to refer to a Kirlian aura as 'life force', 'bioplasmic energy', 'life energy' and so on. Similarly, claims that the shape, intensity or colour of Kirlian auras are representative of states of human physical or mental health, emotion or strength have no scientific basis at all. The nature of this glow gives us no information whatsoever about the person in the photograph. Scientists have taken Kirlian photographs of all sorts of objects: coins, wires, a drop of water, paper clips, etc. If the glow was in fact exuded by the life force of bioplasm, how does it appear around a coin? The glow appears around dead organisms, too. Clearly, it is not a representative of 'life force'.

The Kirlian glow depends mainly on the thermal conductivity of the object and the structure of the conducting plate. So this technique does have certain practical uses. For instance, if we could polish a rock and photograph it, we would be able to identify the conducting and non-conducting minerals present in it, and determine their quantities.

Kirlian photographic techniques are not very complicated, though the photographs appear very mysterious at first sight. This is why those who believe in phenomena beyond science are attracted to this. Science can be used to dispel traditional superstitions and misunderstandings, but what if someone uses science and the very language of science to spread misinformation?

If we really had the ability to photograph 'life force', someone would have photographed these luminaries and exposed their fraudulence by now.

The shroud of Turin

Extremists entered the Hazratbal shrine in Kashmir. The Indian Army surrounded the shrine. A wave of fear swept through India and Muslim countries around the world.

Why was everyone so worried?

Separatists ought to be dealt with no matter where they are hiding, be it a temple, a mosque, a gurudwara or a church. The constitutional guarantee of religious freedom is not voided by such an act. National integrity trumps the sanctity of religious places in the Constitution.

But the Hazratbal shrine incident was different. It was not just an ordinary shrine—it had a special holiness which elevated it to a site of international importance. Why? Because a strand of Prophet Mohammed's hair was preserved in the shrine.

How do we know that this hair belonged to Mohammed? Where did it come from? How do we accept this claim? What if we tested it? What if we told people the truth?

Dear Lord! Asking such questions is in itself a great sin. Acting on them would trigger a worldwide eruption. So we must quietly accept this claim. Silently bear what transpires.

This sort of thinking is not the exclusive domain of any one religion. When scientists wanted to examine Saint Dnyaneshwar's body, his devout followers were outraged at the very thought of this and bitterly opposed the proposal.

There are Christians everywhere in the world who have unending faith in Jesus Christ. Recently, an article that is representative of Jesus's suffering was found—his shroud.

According to the gospels of Mark and Luke, Joseph of Arimathea took Jesus down from the cross with the permission of Pontius Pilate and bound it in a linen cloth before conveying the body to the site of the tomb. He blocked the entrance with a stone and went on his way.

In the Cathedral of Saint John the Baptist at Turin, Italy, there is a showcase reinforced with iron. It has a bulletproof glass display behind which lies a shroud in a temperature- and humidity-controlled environment. This is said to be the shroud that Jesus was wrapped in. It is about 4.4 by 1.1 metres in size. The strands of cotton in the shroud are from a type of plant that grows in the Middle East. The shroud has resided in many cities due to changing regimes and constant wars before it ended up

under lock and key in Turin. It has been there for four hundred years now. Many devout Christians are convinced that this article is truly the shroud of Jesus Christ. It was put on display in 1987 and lakhs upon lakhs of people have visited Turin to see it.

In 1898, a photographer called Secondo Pia took pictures of the shroud and noticed that the negatives showed the outline of an image on the shroud. When he developed the film, he was shocked to see the very image of Christ in the photographs. In no time, the Christian community across the world was in a state of religious ferment.

The photographs reveal an image on the shroud of a 5'11" man. The beard and long hair in the image are consistent with the way Jewish men wore their hair around the beginning of the Christian era. The man's shoulders appear to be bent because of a great weight (before Jesus was crucified, he is said to have carried the cross on his shoulders). Holes can be seen in the hands and feet (because of the crucifixion). A small depression is visible on the fifth or sixth rib (where Jesus is said to have been stabbed by a Jewish soldier after he was crucified).

After this image was found, a flurry of research began. Criminologist Max Frei studied the shroud closely for nine years and determined that the pollen found on the shroud was similar to samples found near the Dead Sea. He estimated that the shroud was 2,000 years old, and therefore dated back to Christ's lifetime. Ray Rogers, an American thermologist, was of the opinion that the image was imprinted due to a sudden burst of light. Christian imagery shows Christ stepping out of his tomb in a burst of light during his resurrection, and hence this was believed to be the logical explanation. A few other American scientists analysed the image, too, and concluded that it was the imprint of a body laying underneath the cloth.

A textile scientist from Britain, W.B. Best-Jordan, proposed that this was a contact-image. When a piece of cloth is made, he explained, it goes through a lot of chemical processes. Scientists, Mr Best-Jordan believed, don't yet fully understand how textiles react to touch, given that there are so many chemical reactions in the process of making cloth. Some fabrics don't show any impact of contact at first, but later develop its exact imprint.

Ian Wilson, noted British journalist and historian, has explored in painful detail the history of the shroud since 50 AD ,

in his book *The Shroud* . At first, says Mr Wilson, the image on the shroud was thought to be the work of a medieval painter. However, scientific analysis revealed no presence of paint in the image. Some people believe that the image was imprinted by the stains of the blood of Christ. There is debate about whether the forensic evidence definitively shows traces of blood in the shroud. People who believe this claim regard it as conclusive evidence of Christ's resurrection.

The Vatican has neither authenticated nor dismissed the shroud of Turin, as they believe there is not enough evidence to support either of the claims.

Scientists continued to flock to Turin to try and solve the riddle. In 1978, Cardinal Ballestrero, the Archbishop of Turin, permitted battery tests on the shroud. He did not permit carbon dating, however, because that would have required cutting away a large part of the shroud.

In fact, several decades before these tests were conducted, Father Herbert Thurston, a British Jesuit priest, had studied the history of the shroud very closely. In 1903, he unearthed a shocking fact. Back in 1389, Bishop Pierre d'Arcis had written a memorandum to Pope Clement VII, stating that the shroud was a forgery and that the artist who committed it had confessed.

Father Thurston's writings about his research had no impact on believers. The belief that the shroud was definitely that of Jesus was so ingrained in the minds of the faithful that they ignored the facts he laid before them. The legend was of economic benefit to the Church, of course. Naturally they, too, ignored the evidence.

Finally, Pope John Paul II decided to resolve the matter once and for all. With the advances in the technique of carbon dating, only a very small piece of fabric was now required for analysis. A sample was cut from the lower left side of the shroud and further divided into smaller pieces. Dr Michael Tite, scientific director at the British Museum, sealed the pieces separately in front of Cardinal Ballestrero. The samples were sent to renowned laboratories in Arizona, Zurich and Oxford. All three laboratories independently concluded that the samples dated back to 1000–1500 AD . Naturally, a shroud that was made a thousand years after Christ could not be Christ's shroud.

Pope John Paul II asked the Archbishop of Turin to make

this information public. Thus, the world found out the shroud had nothing to do with Christ. The leaders of the Church were relieved that the mystery had been solved. However, a lot of pious Christians did not like this conclusion. Speculations were rife, regarding the inadequacy of dating techniques.

Mr Ian Wilson, the writer of the bestseller we talked about earlier, is of the opinion that there is a lot wrong with the carbon dating evidence. In 1532, the shroud was caught in a fire. Water was poured on it to douse the flames. This, as well as the radiation that was emitted when Jesus Christ was resurrected, must have adversely affected the carbon dating tests. The scientists who conducted the tests were undoubtedly biased, and this affected their work and conclusions. Some people also insisted that the method of carbon dating was not universally accepted by the scientific community.

Professor Hall, a carbon dating expert at Oxford University, has delivered scathing responses to all these doubts.

He pointed out that the technicians knew a part of the cloth was replaced after the fire of 1532, and so they took samples from the part where the threads were intact and continuous from top to bottom. He also says that the latest technique of carbon dating, called Accelerator Mass Spectrometry (AMS), was used. This technique requires only very small samples and it is considered reliable. There is no truth in the claim that carbon dating is not widely accepted in the scientific community, he asserted. In his own work, he had determined the age of at least two thousand objects and the technique had never failed him. There could be a margin of error of a couple of hundred years, but it was impossible for scientists to be off the mark by a thousand years.

Professor Hall also pointed out that one of the scientists who had worked on the dating process, Douglas Donahue, was a devout Catholic. Donahue had been certain that the shroud was that of Jesus, and was disappointed by the results.

What is the moral of this story? To practise religion is to practise what religious leaders have preached in their time. Religious worship is expressed in the practice of its core teachings, and not in the adoration of relics, whether authentic or fake, belonging to saints or prophets. Relics are not religion. We ought to believe only in that which stands the test of truth.

The rest ought to be dismissed as superstition. Religion which rejects modern science is not true faith; it is but a selfish act that aims to prevent the masses from being true to themselves.

To the people who conspire to do this, Swami Vivekananda has this to say:

> Should religion use the same kind of logic that every branch of science uses to establish itself? Should religion use the same tools and methods that science uses to make sense of the world around us? My answer to both these questions is yes, the sooner the better. If doing so causes the religion to collapse, then that religion was never a religion—it was a meaningless, useless superstition. I have not the smallest doubt that it is glorious for such superstition to crumble and fall. All weeds must be uprooted and the real core of religion ought to be revealed, refined and shining, in this process. Religion ought to have the same scientific approach that physics or chemistry has. This will let it become more adept.

One grain of rice forward, one grain of wheat backward

It has been sixty-five years since the Mahad satyagraha, when Dr Babasaheb Ambedkar led Dalits to drink water from the Chavdar Lake in Raigad, an act they were barred from because of their caste. The caste Hindus were frantic and purified the tank by tossing five ingredients obtained from a cow (including milk, cow urine and cow dung) into the lake. And lo—the lake was 'pure' again!

There is no question that caste is a poisonous superstition. A random person, by virtue of belonging at birth to a certain caste, can be so pure that the very water his feet are washed in is considered holy. Another person could be extremely virtuous, charismatic or talented, but is considered untouchable because of his caste. Such beliefs are nothing but inhuman. Caste is upheld by strong vested interests prevalent in society for so long that we have forgotten whom this superstition actually benefits.

We have tried to abolish this injustice on paper through provisions in our Constitution but we have not tried hard enough

to wipe the stains it has left on people's social consciousness. The concepts of impurity, untouchability and inauspiciousness associated with caste persist in Hindu society. When something unfortunate happens, many people still ask if someone might have caused the incident with their inauspicious presence. These beliefs are so strong that they rubbish even the solid bases of science. An incident that took place recently in Raigad is a case in point.

In a place called Nagothane in Raigad district, there is a gas project called IPCW that operates using cutting-edge technology. A big blast took place in this facility recently. The logical steps to take would be to closely examine the workers, their conditions, the implements they handle, the immediate environment, and so on, to come up with scientific solutions to the problems identified. This process was already under way when a fantastic idea entered the proprietor's head. This idea was to prevent future misfortune by performing the sudarshan and mrityunjay yajnas on the site.

Lakhs of rupees were spent on the rituals. Top IPCW executives performed the puja. There was an elaborate altar. Devotional songs were sung all day. Thousands of laddoos were ordered for the prasad, not to mention ghee and shrikhand from Mumbai. The head priest was the famous Vedic expert from Pali, Suhas Gadre. A team of eleven Brahmins was on hand to assist him. Twenty-five different rituals were performed. These included purification of the space, purification of the soul, establishment of the fire, establishment of the planets, complete sacrifice and other such extravagantly-named ceremonies.

What do these rituals imply? Isn't the mentality behind the 'purification of space' here and the purification of the Chavdar lake the same? It is the notion that some people and places in the world are impure, and the exhortation to stay away from that impurity, being ritualised. Further, the existence of non-existent planets must be established. Rituals must be performed for calming down the invisible, scientifically impossible planets of rahu and ketu. There are some occult powers that must be kept at bay with yajnas. Brahmins are the beloved of the gods and hence only they can perform the yajnas. Some Vedic experts must be called in because the Vedas contain all the answers to the mysteries of life.

Should executives overseeing a technologically advanced project participate in a puja based on these assumptions? Should they burn tins and tins of ghee, a food item that millions of impoverished people don't even get to see, let alone eat?

The executives responded to such objections by saying that the ritual would give peace of mind to the workers. It would make them feel brave. This method of rendering people fearless by telling them they are puppets at the mercy of unknown powers is, to say the least, strange.

Did you notice another strategy here? If another accident occurs at the facility, it would be convenient to say that the last yajna was not performed properly. There's no need to look at malfunctions in the machinery or possible flaws in technology. Simply call a priest from Varanasi and burn barrels of ghee this time.

My mother used to tell me a story about a Nandi statue outside a Shiva temple near the river. It was believed that the statue inched forward slowly every day. The golden period of humanity would begin when the statue reached the river. The only hitch was that every year, it would move the length of one grain of rice forward, and then move the length of one grain of wheat backward.

Isn't this the pace of our movement to eradicate superstition and herald the age of science; of our journey from Chavdar lake to Nagothane in sixty-five years? What do you think?

A hungry crow will eat rice!

I was chatting with Vijaya Jogalekar-Dhumale in Mumbai's Doordarshan building. An eminent person entered the room and Vijaya introduced us. On hearing my name, he said, 'We were talking about you just the other day.'

I raised my eyebrow in question and he continued, 'I was at the cremation ground that day. The crow would not touch the rice left out for him. Everyone said, call Mr Dabholkar here and show him this. Three hours later, when all the entreaties were made, the crow finally pecked at the rice.'

This is a Hindu custom. After a cremation, the sons of the deceased must bathe in the river and get their heads shaved. Then they have to perform rituals while a priest guides them.

They cook a good meal and set it out on a plate. Then, sitting a short distance away from the plate, they caw to attract the crows. If a crow pecks at the food immediately, it is believed that the soul of the deceased has been liberated. But if the crow ignores the food, the sons appeal to the dead, assuring them that all their living relatives will be taken care of. They tell them not to worry, and entreat them to let go.

Then they sit a little farther away, and when a crow finally touches the food, they conclude that the soul of the deceased, which had been caught up in the affairs of the world till that moment, has now been liberated. If no crows show any interest in the food, the ritual is completed with a model of a crow.

This superstition, in sum, holds that crows immediately peck at the food left out for them if the deceased has let go of the material world completely, and that if the crows delay, the deceased has not let go yet. But several (otherwise reasonable) people don't believe that this is a superstition.

I had just finished giving a speech at a university. The principal came to see me off at the gates. He said, 'Doctor, even non-believers start to believe when they experience certain things first-hand. I've had such an experience myself when my grandfather died. He was very old and he died quietly of natural causes. He used to pray and chant mantras quite often. There were some students he used to teach. Among them was Sonubai, an old, widowed woman. She took care of grandfather when he was staying in his village. She used to feed him and take care of the house. She was well-respected in our family.

'On the tenth day after grandfather died, we bathed in the river and set out the plate of food. Grandfather was never involved in the affairs of this world. He was constantly praying and had died peacefully. So we were all convinced that the crows would immediately peck at the food. But a long time elapsed and everyone got restless. We didn't think he had any wishes left unfulfilled, so we decided to use a model crow.

'But just then my uncle said, "We won't leave Sonubai to fend for herself. She'll stay in the village house." It was as if the crow was waiting for just this! It instantly flew towards the food and pecked at it. How to make sense of this? Your science believes that some animals sense changes in nature before humans do—for instance, earthquakes and storms. Dogs can sniff

out a corpse hidden in debris when humans can't. This means birds and animals have certain powers. We must study them. Our ancestors studied these creatures closely and that must've led them to find out about this unique power that crows have. Certainly our ancestors did not want to dupe anyone with this discovery. So, shouldn't we research this?'

On the surface this story seems authentic, but when you look a little closer it starts to crumble quite easily.

How many assumptions are being made? One, that every person has a soul. Two, a person's soul hangs out on the earth for at least ten days after they die (or, takes leave from heaven or hell to be present on earth on the tenth day). Three, even if the soul belongs to a pure vegetarian, it has no issue entering the body of a meat-eating crow (certainly, finding a vegetarian crow is impossible). Four, this soul that enters a crow's body also has a human brain; how else does it understand all the entreaties and assurances that its human relatives make? Five, when the soul extracts what it wants from its relatives, it pecks at the food and thus indicates that it is now happy. Six, as soon as this is done, the poor soul leaves the crow's body—because crows are few and souls are many, and the other souls are already queueing up for their turn. And seven, every living thing has one soul but crows have a superpower wherein, sometimes, they can accommodate two—their own, and a human's. Actually, one can't find a better example to exhort people to think. If you look a little deeper, you'll easily find the truth.

Almost everyone who dies has at least a few unfulfilled wishes. Yayati, a mythical character who asked for the youth of his son to make it his own, is a personification of man's unfulfilled desires. Only very few people, like Baji Prabhu who was happy to lay down his life once Shivaji was safe, have no wishes left. This means that crows at crematoriums ought to peck quickly at the food laid out for them only on rare occasions. However, as a rule, they immediately make their way towards the food.

An activist from our movement conducted a study. He attended cremation rituals performed for young people who die in accidents and people who die while they still have familial responsibilities. He then noted the time crows took to eat the food in these cases. These people must have had a great deal of

unfulfilled wishes, but in 70 per cent of the cases the crows ate the food immediately. You can draw your own conclusions.

Crows are braver than most other birds. And with experience, crows around crematoriums realise that people will not harm them or shoo them away. So they approach the food without fear and eat it immediately. This is common in cities, too, because there is a shortage of other food. Fewer people die in villages (because the population density in rural areas is lower), so fewer crows settle in crematoriums. Every animal wants to protect itself. Crows, guided by this natural self-preservation instinct, are supicious of people who usually shoo them away holding out a plateful of food. Inexperienced crows sometimes approach the food or even peck at it and then fly away when they see people nearby. They eat the food in peace after the humans leave. In rural areas, crows have the option of feeding on foodgrains. Hence, they are not always hungry. If they aren't hungry, why would they touch the food?

People, however, interpret this natural behaviour to conveniently suit their own beliefs. Crows do not indicate human souls, their freedom or bondage. Humans draw these conclusions. This is an example of how untested traditions can blind people.

One of our activists gave a fitting reply to people who ply us with questions about crows and souls. He said, 'Let's perform an experiment. Let's make a plate of delicious non-vegetarian food for a deceased lifelong vegetarian. Ideally, the crow should not touch the plate, but I guarantee it will make a feast of it.'

When cross-questioned like this, people say, 'All this is twisted. You people don't believe in anything. There must be something behind this!'

There is something behind this: the waste of time indulged by a blind and superstitious society.

Blindness or awareness?

I was attending a programme at Pune's Muktangan Mitra, an organisation that works tirelessly to cure people addicted to various substances. The discussion was around the usual topic—eradicating superstitions.

All the people admitted to the facility suffered from addictions. Their families were suffering, too. Naturally, their

first resort had been some holy man or other.

A lot of people told their stories. How they went to these holy men or babas, how some were forced to go, what the babas had suggested, the remedies they had used and so on. How they drank madly before visiting the baba because they knew this was the last time they would ever drink. How they came home and drank again, just to spite the baba. How they hid it from their families. Then they came to Muktangan, and now they were getting better.

But one of them disagreed. He said, you say the baba didn't cure you because you relapsed into your habit. What if you go home after Muktangan and relapse again? If your relapsing meant the baba was fake, the same could be said of Muktangan. Different things work for different people.

His question gave me a specific topic to talk about as the chief guest. I said, it is not as if Muktangan and the holy men are the same, and the only difference is that they suit different people. It is a question of awareness. What the babas do is all mysterious. They chant mantras and make the addict's family members fast. They use incense. They tell you how to quieten an angry planet. They assure you that sacrificing a hen or a goat makes bad spirits go away.

People are emotional. They are shaken to see the breadwinner of the family or the young boy at home lose himself to an addiction. They do everything they are asked to do by the holy men and hope for the best. When nothing works, they blame fate.

What is addiction? How does it enslave people within its claws? What is the solution to addiction? Why that solution? People don't really ponder over these questions. They grope around blindly for answers.

When a person is admitted to Muktangan or any other de-addiction facility, the first thing he or she is told is that addiction, whether to alcohol, cannabis, opium or other drugs, is a health issue, one acknowledged by the global medical community. It develops through a combination of personality issues and environmental conditions. There is no use shouting at or criticising a sick person. Nothing good will come of her near and dear ones showing dejection, anger or irritation with her addiction. One cannot give up after a relapse, or run to a baba

for a solution. We have to find the reasons for the addiction, identify the problems that led to it. We have to try changing the remedy.

What can be done to cure the addiction? How can patients distract themselves? How can we ensure they don't relapse? What needs to be done to fix family issues? How can the addict be reintegrated into normal life, including work? How do you repair the damage to his reputation? How can he reclaim his former status in society? All these questions are related to the addicted person's mind, his life and society. No baba, no matter how powerful he is, can resolve these issues. They have to be fixed by the patients themselves and those who care about them. It is not a question of the nature of the remedy. The question is how do we use it: blindly or with awareness? How do we face problems? By giving oneself up to mysterious powers, or by finding causes and solutions?

It is possible that our efforts will be inadequate. They might even be misdirected sometimes. But that is why they will eventually succeed. Fixing today's mistakes yields tomorrow's solutions. Mantras and rituals won't solve the real problem at all. It will only take us round and round in circles and make us lose our way.

Sometimes, you can use the completely wrong method and still end up with the right answer, like solving a math problem by fluke. Similarly, some people are cured after visiting babas. But everyone needs to ask themselves: what is the right way of overcoming such problems? Running away from it and seeking refuge in nonsense, or making honest, mindful efforts?

The governor's superstition

Some questions keep whirling around as you work towards the eradication of superstition: 'Explain the difference between faith and superstition.' 'Your scientism does have limits, doesn't it?' 'Are you trying to abolish the gods?' Some of these theoretical debates were played out in the real world, thanks to a governor.

In 1992, the monsoons had evaded Maharashtra. People were distraught. In the midst of all this, the governor made an appeal. On a particular day at 11 a.m., everyone was to pray for rain.

Because it was the governor's wish, directions were issued left and right. Pictures of people praying were splashed across newspapers: from district collectors to labourers, from school principals to young students. Then a whirlwind of accusations and counter-accusations began: was this naïve superstition, or a powerful prayer to the universe? I sensed two deficiencies in this whole discourse. One, the main point was lost. Two, the discussion had a delicious relevance to it. The Constitution upholds scientific temper as a guiding principle for society and the new education policy calls for inculcation of scientific thinking. Yet, unscientific and superstitious beliefs and practices abound in the country. There ought to have been a greater hue and cry about this matter.

The nation faces many serious problems today, so why not publish a calendar scheduling mass prayers to counter the terrorist threat in Punjab, Assam and Kashmir, or to tackle price rise, bad loans and corruption? Most people did not like such questions being raised. They felt it denigrated their faith and were convinced that we were out to eradicate that faith. Their argument was, all the problems stated above are man-made. Drought is a natural phenomenon. What is wrong with praying to God for rain when there is a drought?

It is a natural human tendency to seek refuge in an external power when the situation is out of control. But it is also a human virtue to maintain rational thinking in society, even amidst adversity. The opinion that praying right before an exam is useless if you haven't studied all year is common sense.

No one can counter Vinoba Bhave's expert argument in the matter of prayer. He used to say, 'Prayer too has its limits. If you want to go to Delhi but sit in a bus headed for Madras and pray very hard for the bus to take you to Delhi, what is the use?'

What the governor and all other praying officials had forgotten (perhaps conveniently) is that the lack of rain is not the main cause of the drought in Maharashtra. The state uses its water resources with zero planning and in extremely unscientific ways. This disaster is not natural; it is man-made. And therefore the solution to it cannot be prayer.

At the outset, it must be understood that drought is the lack of water for drinking and for agriculture. Its relation to rainfall is not as straightforward as it seems. Otherwise, why would

drought conditions persist in Marathwada and Vidarbha for the past three years despite above-average rainfall?

Let us look at the numbers.

The average annual rainfall in Maharashtra, 1,200 mm, is enough to keep drought at bay with adequate planning. Even accounting for variations in rainfall with time and place, there would be sufficient water for one crop, fodder and drinking, with just 402–500 mm of rain. This has been proven at the state, national and international levels. Even when inadequate rainfall is a natural phenomenon, human beings, that is to say, the lack of planning and state inaction, cause drought. With as little as 400–500 mm of rain, 20 per cent can be used and directed well to provide irrigation security to half the sown area in drought-prone areas. In reality, out of the 303 talukas in Maharashtra, 200 receive more than 750 mm rainfall, and half this number receive more than 1,250 mm. In other words, if Maharashtra stores and uses its rainwater properly, it can permanently eradicate drought. But because Maharashtra's irrigation system is in poor health, its water storage system is also ad-hoc, and this in turn affects irrigation adversely.

The dams of Jayakadwadi and Ujani cannot even help irrigate the land on which they are built. Is there any point in spending 10,000 crores to build more projects like those?

As of today, only 2.5–3 per cent of the cultivated area in Maharashtra is used to grow sugarcane. And yet sugarcane takes 60 per cent of the water used for irrigation in the state. If we do not realise that 60 per cent of the state's water supply is being used on just 3 per cent of the land, the water scarcity in Maharashtra will become acute, leading to the destruction of the land and its produce as well.

With better management of resources, we can double the sugarcane yield while halving the amount of water used for irrigation. All this is known to us, but steps are not being taken to make it a reality. Who will think of tomorrow when water and electricity are free or sold at nominal rates today? This is not a question of what farmers do or don't, but of how laws are framed and policies are implemented.

Why is there such an acute scarcity of drinking water in rural India when the rainfall has been ample for the past three years? The simple answer is: over-extraction of ground water.

Currently, seventeen lakh electric pumps are used to extract many times more groundwater than can be naturally replenished. There is a race to dig deeper and deeper wells to reach more groundwater, and this will accelerate the crisis. Attention is not being paid to replenishing groundwater supply, and the resultant imbalance between extraction and replenishment is the chief cause of drought. We need to realise that we spend nearly 800–900 crores every year on water supply and water storage. Without a law that regulates groundwater extraction and replenishment, this madness will not stop.

What do the arguments raised in favour of prayer and against scientific temper in this context mean—the worth of pleading to God, showing sympathy for the common people, the observation that it rained after the prayer, the place of spontaneous emotion in human life and so on—all expressing the inability to register any form of dissent? Where is the line between faith and superstition? This was the second part of the discussion.

There is inherent value in prayer. It is the one thing that makes human life bearable. Prayer is part of the religious life of societies across the world. Everyone prayed when the Pope was ill. Even scientific-minded Britishers sing 'God save the King'. Why must you anti-superstition activists unnecessarily create a racket? At worst, our prayers are harmless; just ignore them. What is wrong with indulging in a little naïveté for the good of the people? Your superstition-eradication work is good. But limit it to eradicating spells and frauds. Raise your voice against the killing of innocent animals. Insulting a well-meaning prayer is equivalent to belittling the faith of many. If you peddlers of science don't like any kind of prayer, just stay away. Even modern doctors ask people to pray for the sick!

This is how the proponents of prayer demarcated the line between faith and superstition. The commotion grew so loud that even the governor's justification ('It was a prayer to nature') was not needed. Many insisted it was a prayer to God, and believed that the rain which followed was evidence of His pleasure.

We must carefully examine the forceful claim that there is inherent value in prayer. Setting aside the emotional support aspect, what has been our experience with the actual effectiveness of prayer? The Goddess who was supposed to be so

powerful that She could afflict people with smallpox now seems to have lost all Her power. No one, even in the smallest villages of India, now tries to cure cholera with divine remedies. They understand the need to keep water germ-free. There is no longer any question of praying to Indra to spare us his lightning bolts. Small devices on tall buildings do the job quite well. Prayer is not effective in any of these cases, and the same conclusion applies to praying for rainfall, too. Understanding this is a simple function of scientific temper. Shouldn't the governor, who is the chancellor of all the universities in the state, perceive this? Is that too much to expect?

The advice to limit the work of the anti-superstition movement to the eradication of animal sacrifice, spells and the use of incense is self-centred. Why should we view only these practices as superstitious? Because so-called forward castes believe that these practices are undertaken by economically and socially backward castes? When objections are raised to animal slaughter during yatras, the Dhangar people ask: why do you disrespect our practices? Why do you want to deprive us of our happiness in the communal meal after the animals are slaughtered? A woman who uses incense often does so in conjunction with medical treatment because she is being pressured to produce a male child. The people who resort to spells are ignorant about mental illnesses. They are afraid of external magical influences. Often, psychiatric care is unavailable or unaffordable. In short, the practices that prayer-sympathisers think are ripe for eradication have their own defendants or justifications.

Actually, all these practices as well as the practice of praying for rain are superstitions. But the truth is that one person's superstition is another's devout faith. The definitions of faith and superstition change with time, and are relative to the believer; thus confusions and misunderstandings abound. Still, we can propose a system of differentiation based on some principles.

One, it is superstition when causality cannot be demonstrated. Such cases are extremely common. Praying for rain is an example. Despite religious freedom and the right to respect for one's beliefs, it cannot be denied that the public manifestation of causality-free beliefs tends towards superstition. In the case of the governor's prayer, the wholesale act of sending

circulars to all schools, colleges and government offices, and telling everyone to pray at exactly 11 a.m. for two minutes, turns even good faith into superstition. The more serious problem is the studied silence about the actual causes of the problem. The best prayers are both honest and specific 'Dear God, please grant good sense to our policymakers so they don't mess up the planning process again' or, 'Dear God, we have made mistakes, but please forgive them now that we are going through a crisis.' These are prayers which express acceptance of the real causes of the problem. The prayers that were read in schools that day had not a whiff of this realism. In fact, such prayers arise from staunch faith, the kind that the saints had.

What is the true value of prayer? It helps us concentrate and stay optimistic, offers distraction from worrying thoughts and a temporary boost for a weak morale. Good wishes and condolences fulfil these needs as well. A person in trouble sees other people praying for her, knows that they feel her pain and feels some relief. While understanding the empathy in these human gestures, we do not need to let go of rationality.

However, when I asked rural people for their opinion on the governor's prayer for rain, they dismissed it as being self-serving and hypocritical. In this case, the actual remedy for the drought was so obvious that the prayer could not possibly give any genuine relief or mental strength to the drought-affected people. Here it is important to clarify that the effects of prayer are purely mental. A child leaving for a dreaded exam is able to steel himself because of his mother's blessings and his friends' wishes; this might even help him remember what he has learnt better. But no amount of blessings or wishes can help him reach school on time if he starts late. We must keep the limits of prayer in mind.

After the mass prayer, it rained in many parts of Maharashtra. Is this proof that the prayer worked? How do we counter people who make this argument? The work of Vasantrao Gowarikar, a son of Maharashtra, has done a lot to advance the science of predicting rain. His mettle has been proved on several occasions in recent years. He had, in fact, publicly announced in 1992 that it would rain after 18 July, and that is exactly what happened. The connection to the public prayer that was performed a day before was made by people on their own. The

school children, no doubt, thought this.

Faith in God is a noble sentiment. People who truly feel like praying don't need orders or appeals. They must have prayed earnestly when Maharashtra was struggling with drought in May 1992. Earnest, intense feelings can provide strength. This can be explained scientifically. Man does not live on logic alone. The tendency to reject causality may not be sound but it is understandable sometimes. We understand that people can act illogically on occasion, driven by emotion. In fact, we ought to respect the raw feeling behind this when we analyse human behaviour. But how can this rawness be genuinely demonstrated by hordes of people publicly? It would have been fine if the governor had said, 'I have prayed, and whoever else wants to, can do so in their own way, wherever they are.' But issuing directions for public prayer is quite a different thing. The very thought behind the prayer was turned into a joke because of the manner in which it was carried out. A truly devout person ought to reject such prayers.

God's godliness

This song used to be popular when I was a child:

> Dear Vitthal, make haste!
> Rakhumai pleads, let's leave this place!

Vitthal is an innocent God. He stands with His hands on His hips.

Next to Him stands Rakhumai, his wife and companion through the ages.

These gods were showered with love by true devotees. But Rakhumai senses that something else is up. Vitthal is surrounded by throngs of shrewd pretenders. They had ensnared Him and auctioned their devotion.

Rakhumai sees through this fake devotion, and irritated by it, pleads with Vitthal: 'Let's go, this place is not ours anymore. Real devotees have no importance here. No one respects devotion. It is a blemish upon your greatness! I cannot bear to see it.' She doesn't stop with only pleading: 'Come if you want to, else see me off. I am leaving. I will leave you to your fate.'

So what if Vitthal was a God? Everyone is subject to the vagaries of fate, or luck. It can trap them or let them go. But not everyone has a Rakhumai to tell it like it is.

What, then, is the solution? We must prepare a horoscope for Vitthal. We must study it carefully and calm any distressing influences. This is not a joke. This is not fantasy. I am actually quite serious. You see, there is a very well-known temple town in Kerala called Guruvayur. Its astrologers were recently requested to draw up God's horoscope. This is the story of how this ritual, known as Devaprasanna, came into being.

There was increasing non-vegetarianism among the priests of Guruvayur. Alcoholism, too. Rituals were being modified for the convenience of a few rich people. There was a lot of ill-will amongst the servants of the temple. Temple premises were being misused.

The temple authorities came to believe that the Lord Almighty Himself was facing problems. Now, what should be done to alleviate God's sorrow? What would make His grace and generosity flow again through Guruvayur and His devotees? A horoscope would have to be made. Faults would have to be found. Solutions would need to be identified. So, Guruvayur's astrologers studied God's horoscope (don't ask what they assumed God's date of birth was) and proposed a solution.

A ritual called Sukrit Hoam would have to be performed 1,44,000 times in the span of a single year.

God's horoscope had been deciphered; the solution was proposed. But what new knowledge emerged? We already knew that priests, temple officials and other devotion-peddlers tend only to decrease God's godliness by their actions.

It is possible that this was a plan hatched by the Guruvayur temple authorties. They might have thought that proving God's sadness through astrology and linking it to the misbehaviour of people connected with the temple would frighten the miscreants into mending their ways. They might have hoped that these reprobates would improve, at least for God's sake.

Do you think this will really happen? I doubt it.

It is highly unlikely that rituals like Devaprasanna or Sukrit Hoam will reform sly priests and opportunistic temple officials. These people are well aware of God's capabilities and limitations, thanks to their long cohabitation with Him. Hence, their carefree

abuse of power will continue.

And not every God can have a spouse as shrewd and caring as Rakhumai!

Devaluing God

A man hurriedly got into a bus I was in once and distributed some leaflets. You have definitely received or read this letter at some point in your life. It said:

'A priest was praying in the Sai Baba temple at Shirdi. Suddenly a snake appeared and the priest was scared. Then the snake goddess appeared in the form of an ascetic and said to the priest, "Don't be afraid. I will be born on the earth soon to destroy those who seek to destroy religion. The people who distribute 1,000 leaflets in my name will see their wishes fulfilled in 24 days. The people who procrastinate will face great losses." Having said this, the snake goddess retreated 24 steps behind and disappeared. The people who followed her instruction to print and distribute leaflets became prosperous. Those who distributed 1,000 leaflets won a 60 lakh lottery. Those who distributed 600 found a pot filled with jewels. An unemployed youngster distributed as many as he could and soon found a job. One man, concluding that this leaflet was fake, tore it up and threw it away. His eldest son died. Babulal Gupta from Agra found this leaflet and procrastinated the distribution; his wife died. Five people distributed 1,000 leaflets together. They ended up earning thousands of rupees. Therefore all readers are requested: spread the word according to your faith and take advantage of the coming miracle.

Hail Sai Baba!'

Truthfully, what would you have done after reading this?
Would you have torn the pamphlet and crushed it under your heel?
Would you at least have thrown it away and forgotten about it?
Or would you have made copies and distributed them? Then sighed in relief?
Judging from the frequency with which such pamphlets

are distributed, it is easy to judge what people choose to do.

Such practices point to several problems. People end up wasting time, effort and paper, but that is the small problem. The big problem is that people's minds are held to ransom with the fear of God.

Girls get their hair tangled in knots because of lack of oil and combing. In certain parts of our country, girls with unmanageable hair are dedicated to the Goddess Yellamma and forced to participate in bizarre rituals. They are 'married to God'. All their dreams of a good life are crushed. It is said that Yellamma is very strict and rains her displeasure down on those who even dare to touch the knots. Why would a mother push her own daughter into hell? Such questions are not even considered because these rituals are ruled by fear.

In Maharashtra's religious rallies and yatras, lakhs of goats are slaughtered. Buying, transporting and sacrificing the goats costs a single family ₹ 1,500. For the majority of poor devotees, it is impossible to take part in these yatras without taking a loan. There is no bigger cause of superstition-caused indebtedness in rural Maharashtra. On our tours we realise that even when an already indebted person is unable to get a loan for this purpose, the priests persist in pressurising them. 'You can't stop performing the ritual halfway. God will be very displeased. You have to continue it for at least three years.' Then household items are sold to pay for the ritual. We try to tell these poor people that they are being duped, but it is very difficult to convince them.

Here, the reason for performing the ritual is not, 'it is right, it is devout', but rather, 'Beware! If you don't do this, God will punish you.' Using the Almighty, a being who is considered glorious and just, to dupe people—isn't this making a joke out of His divinity?

Fear is human. To use the fear of others to earn your daily bread is inhuman. In clear terms, it is villainy.

Are religion, gods and holy men supposed to incite fear, or inspire morality? Most people don't ask this question. Even if they do, they choose in the end to make copies of leaflets that peddle more fear and distribute them.

People find excuses, ‘There may not be any logic in all this, but suppose there is? Why take the risk? So I though, let’s just distribute them and get it over with.’

Thus, both God and the self are devalued. If we want to reject and change this mindset, we need to be alert and unafraid.

Weddings for truth-seekers

Japan, a country which seeks to dominate the world economy, recently celebrated the wedding of its crown prince. It was a grand event. A public holiday was declared and descriptions of the wedding were published in newspapers around the world. However, a Japanese citizen wrote in *Time* magazine, ‘Japan is in no state to celebrate such a grand wedding right now. The nation is yet to recover from the recession. We are still reeling from the shock of a Japanese volunteer being killed in Cambodia. It is time to change this thousand-year-old tradition and try to solve the problems Japan is facing today.’

The names of some of the couples whose weddings were solemnised by our movement last year are listed here:

Abhijit Wagh and Surekha Jangude (Ahmednagar)
Vilas Jadhav and Asha Bane (Nevasa)
Mohan Hingse and Pushpamala Karande (Baramati)
Sudhir Salekar and Sharda Pawar (Satara)
Tanaji Maske and Rani Nalavade (Tasgaon)

Why list all these names? What’s special about them?

The text of a couple of their wedding invitations will make it clear.

> Tell everyone: the one true religion is that of truth, says Jyoti!
>
> – Maharshi Phule

Dear everyone, warm greetings.

Meaningless rituals, ‘donating’ the bride and forced gifting and respect make us lose the happiness that weddings are supposed to give. To double the joy of a wedding and for the well-being of the oppressed classes,

the wedding will take place according to the truth-seeking method developed by Jyotiba Phule. The guests will speak their mind. We ask that you grace us with your presence.

Sudhir Salekar and Sharda Pawar sent this invitation under their own names:

Marriage…choosing a companion for life.
And starting a life together
This is so truly natural and beautiful, but…

Weddings involve dowry, a gifting back-and-forth, horoscopes, auspicious times, meaningless rituals, outdated culture, glittering jewellery, the display of wealth, temper tantrums, and the squander of money beyond one's means under the guise of enthusiasm. Because of all this, we lose sight of the joy and meaning behind marriage. Because we want to double the happiness of marriage and change its meaning, the ceremony will take place according to the truth-seeking method developed by Jyotiba Phule.

Please do grace us with your presence.

Tanaji Maske's and Rani Nalavade's families—interestingly, their grandfathers—sent out these invites:

Equality, freedom, togetherness.

Tanaji Maske and Rani Nalavade have decided to wed to live together equally. We hope you and your family will attend the wedding. Speeches will be made about relationships, religion, and God. Please do not bring any gifts.

The anti-superstition movement had also distributed, along with the wedding invitations, pamphlets explaining the background of this type of wedding:

The anti-superstition movement recognises the importance of rituals that are useful to the oppressed

classes. This is why the movement wants to bring into practice, with appropriate changes, the truth-seeking wedding devised by Mahatma Phule over 100 years ago. Group weddings and registered weddings are useful and appropriate, but we feel that truth-seeking weddings are a step further. The background of such weddings is explained below:

1. A complete refusal of dowry, wedding halls, fancy lighting, bands, showy jewellery, gifts, and other such expensive and unnecessary things. The wedding is simple. The only expenses are invitations, garlands, flowers and photos. The wedding takes place in the open whenever possible to avoid spending on wedding halls.
2. The community believes that, because weddings are part of social and familial culture, they should take place with close friends and some rituals. Also, it is a special moment of joy in a person's life. That is why, to preserve the social nature of a wedding, the truth-seeking wedding is better than a registered marriage. There are no temper tantrums and respect rituals in such weddings.
3. This wedding can take place at any convenient date and time. All stress arising due to booking a hall, travel and food for an auspicious time can be avoided. Superstitions, like horoscopes, are automatically done away with.
4. The chants during the actual ceremony are meaningful, simple and made in the couple's mother tongue. All other rituals are simple, straightforward and quick.
5. The waste of rice ends. In a single wedding, 5 to 10 kilos of grains of rice are tossed and wasted. On an average, 3 lakh weddings take place in Maharashtra every year. This means that 15 to 30 lakh kilos of rice are wasted. Instead, fragrant flowers are tossed over the couple and this makes the ceremony memorable. It also helps the cultivator of those flowers earn a little extra.

6. Any person can chant and read the vows to the couple in a truth-seeking wedding. There is no caste requirement. Because this type of wedding is against the dominance of priests and against the oppression of woman, it is best for a lower caste woman to do this job.
7. The bride and groom can announce a donation to any charity of their choice on this joyous occasion.
8. All the money saved by avoiding a traditional wedding should be pooled by both sides and put in a deposit in the name of the bride. The nation needs capital and that requires savings. 12,000 crores are spent on weddings every year just in Maharashtra.

There is nothing new in this kind of ceremony. Mahatma Phule ordained the first truth-seeking wedding on 25 December 1873 and the second on 7 May 1874. Many such weddings took place in several places subsequently. Religious fundamentalists bitterly opposed, and created obstacles for, such ceremonies. Traditionalists did not understand the revolutionary aspect of these weddings. In 1917, a farmer couple was married in this manner on the initiative of Sonaji Babar Patil in Karjat. A Brahmin priest filed a case in the Karjat court because he felt this was an insult to his profession, and because he had lost 4 annas in the bargain. The lower court decided in favour of the priest, but then the Satyashodhak Samaj appealed in the higher court at Ahmednagar. This court ruled in favour of the Samaj and the priest was even asked to pay the Samaj's legal costs. Even with this splendid past, the need for truth-seeking weddings is felt just as acutely today. And very often it is opposed just as vehemently because of traditional values. It is a mentality best explained through this verse:

Kanya varayate roopam mata vittam pita shrutam
Bandhavaha kulmichhanti mishtannamitare janaha

In a wedding, these lines say, the bride wants a capable groom. The groom's mother wants the bride's father to drown his daughter in gold. The groom's father wants the wedding to be conducted with such pomp and show that it enhances the glory

of the family name. Close relatives and friends are interested in seeing whether the other side has the same stature as one's own. The guests are interested in the variety of sweets that will be served at the wedding.

The verse is old but still relevant. Weddings ought to be a celebration of happiness, but because of the display and sheer waste of wealth involved, they create problems for years to come. It is difficult to believe that this flaunting of supposed eminence is meant to ensure that guests are fed well or for the benefit of the bride and groom. All the money that is spent is hard-earned or acquired through loans. A minimum of ₹ 1 lakh is wasted on a proper wedding.

The argument that this is the 'first' or 'last' wedding in the family is disingenuous. In an age when most people have only two children, every wedding is either the first or the last. And anyway, who made the rule that first and last weddings ought to be extravagant? 'It's fun', is another justification. Fun can be had even for ₹ 500. When generation after generation spends lakhs on weddings as if they are possessed, it is either foolishness or blind pride that impels them to do it.

There are other arguments in favour of elaborate weddings. Many people feel that they cannot show their faces in society if they celebrate a wedding modestly. The truth is that no one is beholden to other people's feelings beyond their own capabilities in such matters. No one else's life is really affected by celebrations, or the lack of them, in your home.

'People come together because of weddings' is often said, too. Actually, there is hardly any time to breathe, let alone to talk to people properly, during a wedding at your home. One cannot sit and chat with one's family and friends. Only brief interactions take place, and in such a rush that they leave no one happy. As for the custom of exchanging gifts, often the emotion that overcomes wedding guests when they see an invitation is fear—at the thought of the sheer expense.

But all this comes later. First, the girl is weighed on the scales of dowry in the marriage market. Her personal qualities, education and looks are of secondary importance. The vital consideration is: how far can the girl's family tip the scales of marriage with their dowry offer? And it is not as if the scales are stable after marriage. The girl's father breaks his back to pile

item after item onto them—gold, a scooter, a refrigerator, a television and so on. The noose is tightened the moment the dowry is decided.

Still, the financial position of the girl's family is not everything in the marriage market. In the age of the computer, the same device is used in this market to discriminate on the basis of caste, gotra, kula and the 'science' of matching horoscopes. For a girl to have the influence of Mars on her horoscope is supremely inauspicious. This revelation puts the whole family through incredible stress. No amount of scientific information about the planet Mars can do away with this influence. And, of course, no one asks why many marriages that were based on perfectly matched horoscopes fail, or why many women who enter into such marriages are burnt to death.

The search for an auspicious time for the wedding begins almost automatically when a match is finalised, but it is not enough to find a time that is mutually convenient. An auspicious time must be found. And as auspicious hours are in short supply, the high demand inflates the prices for all wedding-related paraphernalia. All resources and purses are strained during this time. And before you can say 'let's do this in brief', all possible ceremonies have already been planned. And this benefits the newly-wed couple in no way, leaving only loans to be repaid over many years by both sides of the family.

There have been many attempts to find alternatives to all this fuss. Non-profits, community organisations, even factories and unions, organise mass weddings, where many ceremonies take place in one hall. These are smart alternatives to the mindless expense incurred by the average wedding. However, these mass weddings still employ outdated rituals which cost a lot of money. Our intention is to avoid this. Moreover, sometimes these ceremonies are used to glorify the social work done by these organisations. A lot of time and money is wasted on honouring the organisers. This is enough to make us doubt their true intentions.

Registered marriages are a simple, easy and effective practice that avoid all forms of religious ceremony. Most importantly, this is the form of marriage that is considered legal. But for many reasons, this kind of wedding is considered to be something only white-collar people, or eloping couples, opt for.

Sometimes, the marriage is registered but the reception is incredibly lavish. This makes us suspect that the people involved are being rather hypocritical.

The truth-seeking wedding is an honest attempt to find an alternative to all these practices. Some things need to be made very clear. Most people, especially the 'lower' castes, want their weddings to be social events. Thus, the first principle of a truth-seeking wedding is that there must be a social ceremony, albeit a very simple one. Our movement has observed that more than 90 per cent of the cost of a traditional wedding is saved in these ceremonies. The ambience of a wedding can be easily created—playing a shehnai recording does not cost much. Tossing flower petals creates a romantic atmosphere. The fact that no rice is wasted is a point in favour of these weddings.

The biggest cost in a truth-seeking wedding is that of the venue. An evening ceremony conducted in the open bypasses that expense, too. Besides, the concept of an auspicious time for the ceremony is entirely done away with. There is no chanting or reading of vows in a registered marriage, but these customs are included in a truth-seeking marriage. The chants are meaningful and can be changed, depending on the version of the vows the couple has chosen. One of them involves the groom making vows to the bride; another, the bride to the groom; and in the third version, both make vows to everyone present. And the person reading out the vows should, if possible, be a lower-caste woman. People can also do away with reader of the vows altogether. In any case, the truth-seeking wedding is revolutionary in all its versions. The provision for the couple to announce a donation for charity according to their means is also a valuable addition.

We have tried to emphasise the money-saving aspect of the truth-seeking wedding, which is unavoidable if we wish to popularise the practice today. Both sides end up saving money, but the problem is that the money thus saved is likely to be diverted to some other expensive scheme, such as the unproductive buying of gold. On the one hand, the Maharashtra government has to issue bonds worth 500 crores to build the Krishna dam, and, on the other hand, 1,500 crores are spent every year on weddings in the state—all completely unproductive. We must start opting for simple weddings and save

some money in a long-term investment scheme for the bride and groom instead. If the couple invest ₹ 25,000 today, the amount grows to 4 lakhs by the time when their child turns 21. When shown these calculations, people are stunned.

When will we realise that if weddings are a part of our culture, they must be conducted in accordance with the times?

Thinking differently about fasting

I once visited a very highly educated woman at her home. She had studied closely the Japanese art of bonsai, which grows trees in a miniature form in pots. She enthusiastically showed us her potted trees which were about ten or twelve years' old. One pot had a miniature banyan tree. She proudly stated, 'See, this has another advantage. We don't need to go out in search of a banyan tree on Vat Purnima. We simply tie the threads around this tree and pray to it.' She also said that many women in her upscale locality used this option.

I once saw a man sitting next to a huge pile of banyan branches. Apparently he sold these branches to women who didn't have a banyan tree near their home, so they could take one of the branches home and pray to it.

On the one hand, we chant slogans about planting trees, and on the other, we cut the same trees and then pray to them. It seems like we are applying the art form of bonsai to our intellect as well.

Many people, especially women, are sensitive about the subject of fasting. To them, fasting is religion in practice. It gives one the satisfaction of carrying on family traditions and inculcates a certain discipline in daily life. At least, this is what they believe. And so the middle-class woman, who is beginning to taste freedom in every other aspect of life, still insists on fasting. What happens in such cases is that tradition and the call of modernity pull at her from both sides. Consequently, she has one foot inside the home, one foot outside. She cannot completely free herself from her cage, nor does she want to submit completely to tradition.

The month of Shravan brings with it not only spring but also a deluge of festivals. A number of prayers and fasts are observed. Women who proudly declare that 'all traditions are still upheld

in our home' often go through the motions without any pleasure. These rituals are elaborate and difficult to perform in nuclear families, particularly when the woman also works outside the home. Yet it is not exceptional to see, at the end of the day, annoyed women who have fasted since morning and have also gone to work.

Why, then, are these fasts and rituals insisted upon? This question is never asked; neither is 'Why are only certain types of clothes worn during prayers?', and 'Why is the Lord's prasad offered only to a Brahmin?' Asking 'What is the point of fasting?' is pointless, indeed. The fasters themselves hardly know, forget their being able to explain the reasons to others. The reasons are many. Why get rid of beliefs and traditions inculcated since childhood, some ask. It gives a certain satisfaction, others argue, or the strength to overcome difficulties. A common excuse: one needs to do these things to keep the in-laws happy.

Fasting is ultimately tied to our life in a community. It has social, cultural and religious context. Festivals like Dussehra and Sankranti help bring people together. Hartalika and Mangalagour create opportunities for women to socialise with their friends, revisit their maiden homes and commune with nature. Nagpanchami and Diwali are related to agricultural life. Fasts, festivals and other rites certainly had their uses, when they developed in specific contexts. They responded to certain social needs and taught people self-control. If we can accept all this, why can't we accept that these traditions also need to change with the times? Why shouldn't we reduce unnecessary expenditure on such ceremonies, let go of the inequality these rituals promote and come up with meaningful alternatives that are more appropriate to the times we live in?

Eknath sat Mahars and Brahmins next to each other and served them food, and then he stood up to the Brahmins' anger over this. If we call the same Eknath a saint, why do we hire only Brahmins to officiate in the rites we conduct at home? If we think women are individuals, why do we determine their identity during festivals merely as married, widowed or left-by-her-husband? Why should a woman's status depend entirely on her husband? Why must women take pills to delay their periods so they don't coincide with any of these ceremonies?

Many traditional festivals include the custom of giving away

of something that is dear to us. Thinkers ranging from Mahatma Phule to Veer Savarkar have written about this tradition. These elements have simply disappeared from the way festivals are celebrated today. Take, for example, the Sankranti haldi-kunku ceremony. The gifts that are given out to friends are extremely common, useless things; the whole event is just a formality. When good gifts are given, they usually go to people who might already have them or don't need them at all. Where is the goodness in this? The same money could be donated to an orphanage or contributed to the school fees of some poor children.

Many women make vows during certain months of the year. Instead of pledging to give thirty-three gifts to a Brahmin or one's son-in-law during adhik maas, why not promise to donate that money to a school for the blind? Instead of performing a vastu shanti in your new home, why not help construction workers who build countless homes but don't have a home of their own? The vows we require today are promises to feed hungry children or to teach an illiterate person to read. A religious woman I know once read about the crippling poverty in the nation. Since then she has stopped burning the lamp on Navratris. She has started giving out books and school supplies to needy girls. Now her Navratris begin in June because of the school year.

Our society, especially its women, are extremely knowledgeable about fasts and rituals yet extremely ignorant or apathetic about national festivals. But there is one couple I know who calls all their friends over on 26 January. They serve Sankranti food because the festival happens to occur in the same month. There is no question of discriminating based on caste, gender, religion or marital status. Thus, celebrating a national festival becomes a healthy alternative to religious rituals, as these are occasions on which people can come together without any obstacles.

All this is easier said than done, because such initiatives have to begin with oneself. It is a struggle against everything we have been taught before. Even today's urban nuclear families don't provide a conducive atmosphere for this sort of thinking. Women are rarely taught to question and reject outdated practices. They are not encouraged to read, think, refine their

thoughts with logic and develop the strength to bring such ideas into practice or ask for support from friends and family in these matters. One reason for the slow pace of progress in these directions is that before teaching one's children to change, one needs to change these aspects about one's own thinking. Along with this, we need to strictly avoid mocking other people's beliefs and practices just because we don't agree with them. The mental transformation from involved religiosity to honest, open analysis is not a dry, intellectual endeavour. Rather, it is a sensitive, emotional process linked to the life of the community.

We need to remember this. We need to look at these changes as the first step towards reform that begins at home.

Refusal as mindful acceptance

Some people seek to humiliate us by making mocking remarks.

They ask, 'What sort of movement is this? It can be summed up in two letters, one word: No.

Ghosts? No.

Possession? No.

Miracles? No.

Spells? No.

Astrology? No.

Hypnotism? No.

Black magic? No.

So in short…we don't understand anything and we are saying "No" to you too!'

This is how the joke goes.

The other kind of reaction is when people angrily ask, 'You people think you're so smart. Have you understood everything then?'

'You', here, doesn't refer to any particular person, but what the anti-superstition movement represents: science and scientific temper.

Understand this: science never proclaims, 'I have understood everything.' No one who truly maintains a scientific temper can say this.

What does science do? It examines things in a systematic way.

First, observation: as when James Watt observed the lid of a

pot falling off because of steam.

Then, logic and estimation: as when you conclude that there is fire where there is smoke. If smoke is present, you don't actually need to see the fire.

The third step is that of experimentation, and the fourth is verification. For instance, if your experiment shows that water boils at 100 °C, you must then verify that this is the case in New Delhi, London, New York and Moscow as well.

Then you turn the reality that has survived all these tests into a theory. However, this theory survives only as long as new information doesn't prove it false. In other words, science never claims to be all-knowing. At most, it tells us what is accurately known at this time. It is humble. It accounts for the possibility that it is wrong and allows learning from mistakes. The fact that Einstein surpassed Newton's limits does not make their students declare war on each other. Likewise, if strong challenges are posed to Einstein's ideas, they are welcomed.

'I don't like being tested. My word is final; there ought to be no doubt about it. Questioning it is heretical. I have understood the ultimate truth. You need to quietly agree with everything I say.' All these are declarations made by religion. Religion has never been humble. The distinguishing trait of science is the exact opposite.

Science examines phenomena mindfully. It humbly continues the search for what it doesn't understand. But it firmly acts on what has already been understood and proven.

Why does Mahatma Gandhi say it was human sin that caused the Bihar earthquake? This sort of idea must be strongly opposed.

What is the solid foundation of scientific thinking?

'Ghosts?' No, it is either a serious mental illness or a hallucination.

'Possession?' No, it is mental instability.

'Miracles?' They don't exist. These claims are nothing but wickedness.

'Spells?' They do not work, and if people believe they do, we have proposed an open challenge. Use a spell to break a flimsy papad. We will pay ₹ 5 lakh to the person who succeeds in doing this.

'Astrology?' An entertaining art; otherwise, simple

misdirection.

'Hypnotism?' A trance that is not occult in the least.'

'Black magic?' Non-existent. Call us the moment someone recites a spell and actually makes you vomit blood.

What does all this tell us about the anti-superstition movement? It confidently states that what doesn't exist, doesn't exist. It sets out fearlessly to test tall claims. It loudly asks people to stop following practices that have been proven false.

We do say 'no'. But our staunch refusal is science's mindful acceptance.

Religious faith or superstition

The atmosphere at the Chivri pilgrimage was different today. Many people had worked tirelessly for the past few days, and it looked like their efforts would bear fruit. Every year, in front of the Lakshmi temple, sharp knives would slay between a hundred and two hundred buffalos, five to seven thousand goats and ten thousand roosters. This year there was none of that. A queue of people holding plates filled with rotis, rice, jaggery and coconut was waiting to glimpse the Goddess. All this was possible because of activists preaching across villages, the support of elected representatives, the good sense of the temple and panchayat authorities and the government's firm stance.

Yet there was some restlessness in the air. All the usual superstitions apart from animal slaughter were being celebrated. Many men and women who believed they were possessed were roaming in groups around the temple. Women of all ages, from sixteen to sixty, were beating their chests and tearing out their hair. Some people were making their way to the temple by rolling in the dust. To add to the commotion, buffalos to be dedicated to the Goddess were being paraded around and devotees were praying to them as well.

Still, there was satisfaction to be derived from the prohibition of animal slaughter. Several people could be seen taking their beasts back home when they saw that there was to be no sacrifice. We had assumed, however, that there might be some attempts to slaughter animals on the sly, and thus there was a group of young volunteers walking around, singing about the futility of such practices.

At 1 p.m., a crowd of about a hundred people walked to the temple, shouting, 'Jai Shivaji, Jai Bhawani!' Their leader was holding a rooster in his hand. There was a board in front of the temple which proclaimed that animal sacrifice was now illegal. The leader said, 'To hell with the law', and insisted that he had a right to sacrifice animals. The police opposed him and the tension in the air escalated.

And then something happened that made everyone's hair stand on end. There were a number of 'possessed' people in the crowd. An inspired devotee snatched the rooster from the man's hand and literally bit through its neck, all this while dancing madly. Then he threw the body away, but kept the blood-spouting piece of the neck he had bitten off in his mouth. This act of bravery was celebrated as signifying the victory of the Hindu religion. The dancer and the leader were picked up by the blood-soaked hands of the crowd and a procession began.

The next day, a play was performed. Before that, fiery speeches were made. People talked about continuing the glorious Hindu tradition of animal sacrifice, which enhanced the magnificence of the religion. People who discouraged animal slaughter were deliberately beaten up; their bones were broken. Vehicles were set on fire.

This is natural. People are more sensitive than ever about God, religion, faith and its practices.

But what is true religion? What is merely a pretence of faith? What is the substance and what is the surface? Which conceits should we let go of? While we may acknowledge the benefits of faith, can we not see that it is harmful to completely lose yourself in religion? In fact, all these questions have been answered eloquently by saints and social reformers. Tukaram did not say 'pilgrimages mean nothing, God is in behaviour' for no reason. Saints of all religions have appealed to people to look beyond rituals, fasting and prayer, towards the religion of humanity.

But all this is a long way away. The question before the anti-superstition movement today is: what must be done when religion is so completely detached from common sense?

Local pilgrimages are a prominent feature of the cultural and religious life of rural India. They appeal to the emotions of the people and contribute to the happiness of the community. However, do the rites that are performed as part of such

pilgrimages aid the progress of religion, or vice versa? Does it help or hurt Maharashtra's great tradition of reform? And if people still insist on calling this 'religion', how much can our movement even do? Shouldn't conscious citizens and the government take the lead instead?

A pilgrimage in honour of the Goddess Yamai begins at Mouje Nhavi in Pune district. It is led largely by the Charmakar community. People join the pilgrimage in jeeps, motorcycles and cars. Most of these pilgrims are well-to-do people from the surrounding cities. They share the surname Doiphode, meaning 'head-breakers'.

A primary school teacher called Ramchandra Anand Gurav, of the Gurav caste, is the head priest for this pilgrimage. He is accompanied by his brother who works in a factory.

As per tradition, the Doiphodes present Mr Gurav with two old and two new razors. More often than not, in the spirit of 'old is gold', the head priest picks the old razor. Ash, turmeric and vermilion powder is smeared on that old, blackened and rusted blade of the razor. Then, it is decided which village gets their turn to carry out the ritual. A man from the lucky village then starts making cuts on the scalps of the Doiphodes with this razor. This is called the head-breaking ceremony. A single razor is used to draw blood from the scalps of at least fifty or sixty people. The same bloodied razor is carelessly used again and again. Then all the head-breakers circumambulate the temple five times, blood dripping from their foreheads. The shallow cuts heal quickly. But some people have deeper wounds that cover their faces in blood which eventually drips down to their legs. The wife of the man who made the cuts walks around the temple with the prayer plate—after all, her husband has done a great deed. Prayers must be offered! Sometimes she faints at the sight of all the blood. Mr Gurav applies a mixture of ash and turmeric on the blood that hasn't yet dried.

Dr M.P. Shivsharan, a medical officer at the primary health centre in the area, is a member of the anti-superstition movement. He tried explaining to people the dangers of using a razor with ash on it. Some people were convinced; others argued with him. Surprisingly, a young man working at an AIDS research centre argued against sterilisation. As for Mr Gurav, he was in no mood to listen to anything. He had only one thing to

say: tell this to the Doiphodes, not to me. Dr Shivsharan said to him, 'You are their guru, besides being a teacher at the government school. It is your duty to understand all this and to make sure that at least nobody's health in harmed.' To which he replied, 'Doctor, don't tell me all this. Our ancestors used to sever their heads and present them to the gods, and even after the people had carried the body around the temple five times, the head could easily be reattached. We've lost those powers since the British cast their evil eye upon us.'

Indeed, the 'head-breaking' ritual has been performed year after year, and highly accomplished people from the Doiphode community, including high school teachers, surgeons and social welfare officers, have been watching quietly.

Another custom in villages around Pune and Satara is bagaad. Bagaad is a small rectangular piece of wood tied perpendicular to a longer piece of wood. This contraption is placed on a cart drawn by trained bullocks. Many such carts are prepared. The people whose names are drawn by lots to participate in this ritual fast the previous day and bathe in the river before sunrise. Then each participant is tied to the horizontal part of a bagaad. The important villagers sit at the front of the bullock carts. Then the carts move at great speed through farms and fields. The people tied to the bagaad *s* get shaken up quite badly. The carts reach their destination at sunset. One can imagine the state of the participants by then.

How does this please God? If you so much as ask such questions, the people charge at you angrily. If you write letters complaining about the event, they hunt them down. Two years ago, a cart toppled and a man died. The people said, 'He must have sinned. He probably ate mutton and drank alcohol. This is why he was punished.' We were researching a law the British had passed against bagaads when people from one village said to us, 'Don't act too smart. What will the police do, shoot at us? Our community is ten to fifteen thousand people strong. We'll teach them a lesson.'

In Ahmednagar district, on the banks of the Godavari, the villages of Samvatsar and Kokamthan fight a stone-pelting war. This war is based on some story from the Puranas. On a particular day in the year, thousands of devotees pray to their separate deities and prepare for battle. They come bearing

traditional arms. The oldest man in each village is regarded as the army general. The people use short sticks, five- to seven-feet-long long pointy sticks, axes, shields and large slingshots. The war is fought in the Godavari delta and a stream of water is considered the battle line.

Drums and trumpets signal the start of the war. The air is rent with cries of 'Hail Lakshmi' and 'Hail Mhasoba'. Attacks and counter-attacks follow. One can hear people shouting 'Beat them up!' and 'Destroy them!' Every inhabitant of these villages, whether they are seventeen or eighty years old, participates in the five-day battle. Every person must throw at least five stones. Injured warriors are carried to their respective temples. Eight to ten thousand people participate in the event. Many sustain serious injuries to their limbs, heads and eyes. But it is prohibited to consult doctors during the war. Instead, ash is smeared on the wounds while mantras are chanted. At most, salt and turmeric are applied, accompanied by prayers. It is believed that this cures the injured. The central idea is that if this war is not fought, the villages will face unspeakable bad luck. Crops will fail, water will be contaminated and diseases will spread.

People come from all over the state to witness this war. We are told that many attempts have been made to stop this practice. But even British policemen on horseback could do nothing about it.

We can go on and on about these instances in Maharashtra. The big question is, how do these practices qualify as forms of religious faith? Where are the elements of prayer, or even ritual 'purity'? Why do people take pride in these?

- Is religion rolling about in the dust, or touching the feet of a person who does this?
- Is religion roaming or whirling about in a frenzied state for hours at a time?
- Is religion biting off a rooster's neck?
- Is religion beating up people who preach against indebtedness caused by animal slaughter for sacrifices?
- Is religion the ceremonial killing of mute animals to please God?
- The Constitution guarantees freedom of religion to everyone. But is it primitive or modern to think that God is pleased by

horrendous acts of violence?

- Animal sacrifice during yajnas ended with the Puranic age. Is the fact that the practice of yajnas continues today a sign of the progress of religion or of its deterioration?
- Is religion cutting scalps with a razor? Is the state of salvation being tied to a bagaad? Is it cultured to fight a stone-pelting war?

What do people, institutions, organisations and movements that profess Hindutva think of this? Wasn't human sacrifice once a sacred religious ritual? Would human beings have evolved at all, had they not tested their faith? Religious faith is the root of all faith. The history of human progress is a history of our examination and revision of faith. Shouldn't our thoughts and actions be in accordance with the times?

In his speech on 23 June 1956 in Delhi, Dr Babasaheb Ambedkar said:

> We should be able to test religion. What do you do when you visit a jeweller's shop? Do you check if the gold is pure? To understand if the gold is pure you have to test it rigorously. In the same way religion must be tested rigorously. We need to examine every aspect of religion and find out which religion gives people peace and happiness. No one buys gold unless it passes the test. Similarly, we must test religion on whether it is beneficial to humans or not. Religion is not acceptable unless it is tested in this manner. Our nation has become impoverished because we have not done this.

True religion consists in our indebted, impoverished nation reflecting on where our enthusiasm, efforts, time and money should be spent. But in order to do that, we need to be ready for the above-mentioned test.

Forget the test; if faith refuses to be questioned, is it faith or superstition? The people who take pride in these practices need to honestly answer this question.

A superstition emergency

Which is the most dangerous form of superstition?

Beating women under the belief that they are possessed? Astrology, which haunts people with the thought of destiny? Black magic, which makes people's lives hell? Holy men who exploit young girls?

Superstition is evil. All its manifestations are dangerous. But what is the most poisonous form of superstition? It is the wanton transformation of faith into superstition.

The uniqueness of human beings lies in rationality. We are aware of the kind of behaviour—towards the environment, other people and organisms—that is appropriate and just, and the kind of behaviour that is not. We try to act on this awareness. When faith is turned into superstition, this awareness disappears. Society suffers when people lose the all-important faculty of rational thinking. It starts behaving as if it is lost and blind. In this state, a kind of faith takes root that renders its followers incapable of tolerating any form of opposition or criticism.

Take the example of the Dawoodi Bohra Islamic community. The Syedna, their spiritual leader, is the autocratic ruler of over ten lakh Bohras in India.

Asma Taher is a student from Aurangabad who stood first in the Class 12 board exams. She was interested in studying medicine. But she could not apply to a college without the Syedna's permission. Zulekha's story is heart-breaking. She had a malfunctioning heart at birth. Her parents tried to obtain the Syedna's permission to get an operation performed for thirty-five years. The permission was never granted. In the end, Zulekha died. The sheriff of Mumbai, Fakhruddin Khokriwala, had to ask the Syedna's permission before he accepted the position.

Abida and Vakharia work in Mumbai's Mercantile Bank. They were ordered to leave their jobs because taking loans is forbidden under Islam. But how were they to survive without their jobs? The Syedna came up with a solution: the girls would have to pay money to wash away their sins. They paid up and their sins were immediately cleared. But this isn't always enough. Bhaisariya worked in a bank. The Syedna forbade the marriages of his daughters because of his sinful job. Bhaisariya quit his job, but the Syedna wasn't satisfied. He asked for a ₹ 10,000 fine in lieu of the salary Bhaisariya had sinfully drawn all these years. His daughters' weddings would be permitted only if the fine was

paid.

This spiritual leader rules over the community as if he were a government by himself. He levies seven types of taxes on the Dawoodi Bohra community and accumulates ₹ 20 crore every year. Even the poorest Bohras have to pay ₹ 400 to the Syedna every year. The richer Bohras pay lakhs of rupees in taxes annually. Every Bohra has to part with 2.5 per cent of their salary as tax, and, in addition, make a contribution towards the upkeep of the mosque during Eid. When a member of the community dies, the family has to pay the price the Syedna dictates for a grave. And then they have to spend some more to reserve a spot in heaven. They need his permission to marry, and have to pay even to kiss his hand.

These taxes are not specified in Islamic doctrine; they have been established by the Syedna to exploit the community for his personal gain. What is unfortunate is that the decision of a spiritual leader cannot be appealed in any court in the country. Millionaires behave like slaves around the Syedna. Even though the Bohras live in India, it is as if the community is an independently run bastion of the Syedna. Indian laws don't apply here. All this is obviously supported by superstitions, which religious faith intensifies.

Indian society is divided into thousands of castes and communities. It is chained by rituals and traditions specific to each community. In tribal and nomadic communities, these traditions are still the law. One has to bow before them and live in accordance with them. People often want to speak against them but cannot, for traditions and superstitions often become part of religious faith. They start seeming sacred, even safe.

But these are relatively 'backward' people, socially and culturally speaking. The Sikh community is progressive, well-educated and spread all over the world. What about them?

The Sikh guru, sitting in the supremely sacred Golden Temple, issues orders:

(Respected) Chief Minister Barnala and (Respected) Home Minister Buta Singh are guilty of this and that. They are to be excommunicated and punished. What is the punishment?

- They must hang a placard around their necks which proclaims 'I am a sinner.'

- They must do the dishes at a langar.
- They must clean the floor of the gurudwara.
- They must clean the devotees' shoes.

They must perform these penances at five gurudwaras for five weeks, and then present themselves to the spiritual leader. They must appeal to be accepted into the faith again. The request will be considered.

Why must all this be done? Not because they erred in their religious life, but because of the decisions they took as chief minister and home minister.

Why are these punishments quietly borne? Only because no one is brave enough to disobey even misguided orders given by spiritual leaders. Sometimes one believes they are right; sometimes one is too afraid.

What is there to be afraid of? One is afraid that because most Sikh people obey the leader's orders, one will be thrown out of the faith. And one also wonders, how can the all-powerful guru be wrong?

This is what they do not realise:

- The people who give orders make mistakes.
- The people who give legitimacy to these orders through silent acquiescence make an even bigger mistake.
- The people who follow these humiliating orders make the biggest mistake.

This country experienced a state of emergency not long ago. The restrictions were severe. One could not write despite having hands. One could not march despite having legs. One had to take permission before speaking. The people opposed and eventually took down the Emergency in a year-and-a-half.

But a state of emergency created by superstition is far more difficult to oppose. When people realise they are bound by chains, saying 'Get up, free yourself of those chains!' works. But when you think those chains are garlands, and when you think of undignified and harmful practices as the portal to salvation, the hope for release collapses. And so, centuries later, these chains are still strong. Religion is the gold-plating on the trinket of superstition. Superstition buries all that is human about human

beings, and then dances on the grave.

What can be more dangerous than superstition, blinded by religion, that deliberately throws away man's humanity?

The voice of reason

When over-the-top religious ceremonies, especially those of a public nature, are held, they are assumed to be sacred and appropriate. Opposing them is almost invariably a shortcut to inviting danger.

Still, we were on a silent hunger strike outside the Kalpadrumavidhan festival in Neminathnagar, Sangli. Our Jain brothers were very upset about this.

They used to have a good opinion of us. They had collaborated with us in opposing the Dhangar practice of sacrificing animals during the local pilgrimage, and stood by us when we bore the brunt of the community's displeasure. The same Jains who supported our opposition to animal slaughter found our opposition to the Kalpadrumavidhan entirely unthinkable and improper. They were enraged.

Both the Dhangars and the Jains were saying, 'You do not have a right to criticise the manner in which we choose to practise our religion.' On paper, of course, religion is always noble, just and great.

It is said that the Jain religion was founded in ancient times by Rishabha. Regarded as the first teacher of Jainism, he is mentioned in the *Rig Veda* . He specified certain rituals for householders and monks. The religion has had twenty-four teachers, called Tirthankars. The twenty-fourth Thirthankar is Shri Vardhaman or Mahavira.

Mahavira was born in 599 BC . He performed hard penance at a young age in order to eliminate suffering from the world. He is believed to have found enlightenment after fourteen years of rigorous meditation, after which he set about preaching Jain tenets to people. Mahavira made great contributions to theology, social reform and literature. He wrote the earliest Jain texts. He helped women earn respect in society, and set up a separate order for Jain nuns. Most importantly, he elucidated the five main principles of the religion: truth, non-violence, celibacy, eschewal of theft and non-possessiveness. Following these

principles, he preached, helps one build trust and friendship, and to cultivate eloquence and strength. It allows us to abstain from all forms of malice.

The Jain community is very close-knit. A section of it is very wealthy. They play a significant role in Indian trade and industry, and exert considerable influence in the social and political spheres. The community is praised for its business acumen. And yet, they justify the Kalpadrumavidhan prayer.

We were distributing copies of a pamphlet outside the venue of the festival. Its text was as follows:

> The organisers of this expensive function have told us that the purposes of this prayer are: world peace, peace with oneself, and the profession of righteousness. The organisers were unable to clarify how this prayer will lead to world peace and making peace with oneself. The only way in which it helps with the profession of righteousness, they say, is by bringing people together and preaching. Mahavira had railed against rituals and ceremonial prayer. He had set up a godless Jain community. Is this the kind of religious profession he would have wanted? Today the situation is the opposite and we are forced to ask if this is the same Jainism. The same rituals that Mahavira railed against are now being celebrated. The Kalpadrumavidhan prayer, which costs 15 lakh rupees and takes place over 11 days, is an example of the same. This festival, conceptualised by Gyanmati Mataji and unsupported in any Jain text, runs directly contrary to Mahavira's teachings. Pandit Jawaharlal Nehru, in his book *The Discovery of India* , writes, 'Mahavira was brave enough to attack popular religion, superstition, and priestcraft, and all the vested interests that clung to them.' This prayer is not only based on superstition but also squanders money on meaningless pursuits. The Jain community faces many serious problems such as dowry deaths, addiction and unemployment. It is hard to understand how righteousness will be professed through a prayer while these problems exist. We believe that if 1 paisa is spent on rituals, 99 paise ought to be spent on the betterment

of the community.

Ganesh Chaturthi had recently concluded, and so the usual accusation of pointing fingers in the wrong direction was levelled. ‘Crores of rupees are spent during Ganesh Chaturthi. Where does your rationality go then? Go and teach your own community first! We’ll take care of ourselves.’ This us-versus-them attitude is very convenient for diverting attention from the real issues.

But we weren’t the only ones asking questions. Vasanti Shah is an elderly lady who practises her religion sincerely and with social awareness. In an article published under the heading, ‘The Kalpadrumavidhan is a scam for accumulating money’, she wrote:

> In today’s tough times, our chief scholars are using the Kalpadrumavidhan for their own gain. Without doing anything for the community, they are using the community’s money to live a lavish life. They get their feet washed in silver plates. They keep elephants, accompanied by cars, as a symbol of wealth. To maintain this extravagant lifestyle, they organise such meaningless prayers and come up with schemes to sell guarantees of heaven to a handful of rich folk. They expect rewards without having performed any good deeds. On top of this, they get the stamp of religiosity for free.
>
> In all, these priests have made us lose faith in true giving and in serenity. So much so that some wealthy people feel that having a temple built automatically gets you entry into heaven. Because of such delusions, people forget to care about the way in which they earn their money. They stop valuing patience and serenity. Because of this corruption of religious thought, fraternity within the community is damaged. In this Kalpadrumavidhan, 450 special spots in heaven have been sold. The price of these amounts to several lakhs. Apart from this, special prayers on elephant- and horse-back were sold at a price. All this money becomes the property of the temple. This money could have easily

> helped set up 4–5 organisations for societal benefit. The lower classes would have benefited. But this social welfare mindset is present in neither the ascetics nor the wealthy. It is time the poor organised themselves and stood up united.

Vasanti Shah continues to present the bitter truth about these abuses in her magazine *Gyan Shalaka* . Other people from the Jain community who speak in the voice of reason are Motilal Chhajed, Mahavir Sanglikar, Suresh Bhatwara, Swarupchand Raka and Admiral Ramesh Bafna.

Four years ago, an official at the Kolhapur Bahubali temple had the bright idea of celebrating the idol's silver jubilee. It makes sense to celebrate such anniversaries for educational institutions or NGOs. People take stock of the work done in twenty-five years and lay out a vision for the future. What had the idol done in the past quarter of a century and what was it planning to do after, to warrant such a celebration?

The sole motivation for the celebration was to milk an opportunity to make money. The main attraction was a prayer, and a donation using 1,008 pots. The temple officials had sold the pots a few months before the event and earned eighteen lakh rupees. Had they asked for money to help uplift the destitute, they might not have been able to raise even a lakh. Society is really not to blame for this—they have been taught for generations that true giving is when you give to temples and priests, for the performance of rituals. This sort of giving is the path to righteousness, heaven and salvation. Helping the underprivileged, on the other hand, is lightweight virtue.

Vasanti Shah requested in one of her articles:

> There are so many schools around the Bahubali temple. We need to strengthen the administration of these schools using the lakhs of rupees gathered. We need to increase the wages of the people who work there as their wages have not kept up with inflation. They should not end up being exploited because of their helplessness. The quality of the food given to the children must be improved. They must receive food that gives physical and mental nourishment. How can they

be well-nourished by eating watered-down curries?

One can see the inferior quality of food being served to children through our weekly 'Pragati', as well as a medical examination report conducted in some schools which shows that all the children are malnourished and anaemic. Some children have poor eyesight. Some have hearing problems while others have asthma. Some have wounds on their feet, some have dried-out skin, many have enlarged tonsils. All these schools are creating the next Jain generation that will carry forward the legacy of this ancient religion. On the one hand, funds worth lakhs of rupees are sitting idle; on the other, a whole generation is being ruined. Where is the religiosity in this? All of society needs to take this issue seriously.

Such issues are indeed not taken seriously. The voice of reason is feeble amidst the ruckus of religion. Hundreds of litres of milk, sugarcane juice, mango juice, sugar and jaggery were wasted in the Bahubali festival. The idol's feet were constantly washed with ghee. In December 1994, tankers full of milk, mango juice, coconut water, sugar, jaggery and saffron were poured over the ancient Gomateshwar statue at Shravanabelagola. The idea was that, if you poured milk instead of water and ghee instead of milk, you scored more points with God.

Rituals which use food items cause great damage to the idols as well. The Gomateshwara idol is a thousand years old. Bits of food enter crevices in the statue and slowly the stone starts disintegrating. So the archaeology department has to clean the statue after every major ceremony. But why insist on deluging the statue with edible substances in the first place? Why not end this outdated practice of wasting food items in times of poverty and inflation? Isn't it a social crime to casually destroy something so essential to life as food? According to Jain teachings, this sort of waste is a crime without provocation—a meaningless crime. Yet, the people who have taken it upon themselves to defend the religion say that this is a 'religious' practice. Of course, nothing that is practised in the name of religion can be meaningless or wasteful.

This is the Vedic argument as well. Oil, ghee, seeds and rice

are wasted in large quantities in yajnas. The Vedists say these are acts of faith. We are not burning these things away but rather sending them to the gods through fire. The gods, pleased by the rituals, return the offerings many times over.

But the destruction of food cannot be an act of devotion, whether through yajnas or by pouring over idols. Mahavira opposed yajnas on this very principle. Besides, the idea that yajnas can lead to prosperity is unscientific. Naturally, Mahavira would have opposed it. However, his followers, through ignorance and selfishness, have brought superstition and meaningless waste into Jainism.

Hundreds of poor students in Jain schools don't even get to see ghee, let alone taste it, for months. Their skin flakes and dries. Thousands of Jain families are unable to feed their children mangoes even when these fruit are plentiful. In such a situation, how appropriate is it to pour litres and litres of mango juice, and pots and pots of ghee, over an idol? All for a spot in heaven?

Is there any relation between the craze for ceremonial prayer in the Jain community and genuine faith in the religion? Vasanti Shah has given several examples of the sale of religious titles. You want to have the honour of bearing the title of a Tirthankar? Pay this much! You want to be Supreme Devotee? Sure, let's negotiate! These titles are auctioned to devotees, as if these priests decide who sits where in heaven. The priests themselves are secure in every way. No one demands any accountability from them, not even the business moguls who pay them in lakhs. After all, this is a deal they've made: if I pay this much, I get the best spot in heaven. If they believe that they will be repaid a thousand times over after they die, why would they think twice about the money they've paid? No one thinks to ask why Indra, the king of the gods, would give the top spot up to someone else!

Rituals have become an effective way of making money in Indian society. What happens to religion when every ritual can be sold? Notions of gaining virtue by performing rituals are so deeply ingrained in the popular consciousness that even well-educated people don't want to think independently about this issue. Naturally, in such a situation, priests and temple officials become fearless and there is a proliferation of money-making religious festivals.

The majority of the Jain community lives in cities and villages in Maharashtra and Karnataka. Seventy per cent of them are extremely poor. Many Jain students subsist on cheap rice and watery rasam, eaten out of dirty aluminium plates. However, the flow of donations from wealthy members of the community is in a completely different direction. Thus, priests and other temple officials have become millionaires, and the common people are being crushed under their feet. Why don't the true believers see what is really happening?

Mangi Tungi is a Jain holy place. ₹ 2 crore are being spent to construct a temple and a pillar here. The town already has three or four temples and a marble pillar. What is the need for more? It turns out the building project has been initiated because of an ascetic's insistence. This ascetic has been collecting money for this endeavour for ten years. Does he not see the countless Jain families living in poverty? Why doesn't he collect money to build them homes? Is society and culture best preserved by providing much-needed housing to poor devotees or by building unnecessary temples?

What happens when religious sentiments are put on sale? Even the most noble spiritual feeling can become ironic. Some of Vasanti Shah's stories will force anyone to introspect.

On 7 January 1991 in Baramati, Mataji Ajitmati decided to give up all solid food. This sort of ritual is a prequel to giving up food altogether, and surviving on religious faith and meditation alone. In the Jain faith, this sort of penance is a challenge to the self to face death fearlessly. Watching this could be an inspiring experience in this age of materialism.

But Mataji was eighty years old and her body refused to cooperate. Hence, the responsibility for continuing the fast fell on other people. The *Dharmamangal* published news that the honour of this fast, too, was being sold. Using true ascetics as a means to make money, the vulgar sale of virtue and the purchase of false prestige in the presence of thousands of people—isn't all this extremely distressing?

But none of this is new. In 1952, Shantisagar Maharaj and Rishabhsagar Maharaj started a fast in Kunthalgiri. It went on for more than a month. A lot of privileges were sold during the fast, but the trustees wouldn't be true businessmen if they stopped at this. After the fasting ascetics died, the money-making schemes

multiplied. Every single funeral ritual was sold, from bearing the body on one's shoulder to lighting the pyre. Seeing this, Sammantabhadra Maharaj even decreed that he did not want any rituals sold after his own death.

When devotion becomes a commodity on display, all common sense is left behind. Take Atulkumar Shah's renunciation ceremony in Ahmedabad, for instance. Shah, the son of a diamond merchant, proclaimed that he would renounce everything on 1 June 1991. This moment was turned into a grand consumerist ceremony.

Five thousand invitations were printed for this ceremony. They cost ₹ 20 lakh to produce. Every invitation had a three-hundred-rupee silver coin pasted on it. On the first day, there was a procession. Shah took part, wearing an intricately embroidered, gold-inlaid red shirt. He had on a diamond necklace and heavy gold rings. The value of the jewels he was wearing that day was around ₹ 60 lakh. Shah sat in a silver-plated chariot, drawn by seven elaborately adorned elephants. Behind the chariot walked fifty decorated horses, forty camels and groups of dancers and singers. This procession covered eight kilometres. While they walked through the streets, they threw around diamonds and other gems, silver and gold coins. This caused great commotion, as people rushed madly to pick up these valuables.

The next day, Atulkumar renounced the world at the Sardar Patel stadium in the presence of 1.5 lakh people. He assumed the new name of Muni Hitruchhaji Vijayji Maharaj. Even this naming was auctioned. Quotes began at 2.5 lakh, and then diamond merchants from Belgium pushed the price up to 15 lakh. Eventually, they passed on the privilege of making the purchase to Atul's family. All the donations together amounted to more than ₹ 19 lakh. Then 1.5 lakh people were served food.

Commenting on all this, a Jain small trader said, 'Why show off all this wealth while renouncing it? Could this not have been done in a simple, mature, serious way, like the religion intended? If Atul really wanted salvation, he should've tried to gain it by serving the poor. He should've given his wealth to a well-regarded trust and helped build an educational institution or a hospital.' But Hitruchhaji, formerly Atul, did not agree. He said, 'I wanted to show people the importance of renouncing

everything. I wanted to inspire other millionaires to do the same.'

The journey of a religious life goes through the stages of practising the faith, trying to be closer to God, living spiritually, seeking to attain salvation and, in some cases, renouncing everything for it. This is a deeply personal and challenging path. One needs to think a hundred times before taking each step. But this sort of thinking rarely happens, and there is immense pressure to not point this out. Moreover, even the best get fooled into believing in bogus money-making schemes that masquerade as noble religious pursuits.

Once, well-respected Jain teachers in Udaipur formally accepted three girls as devotees. The president was invited to this ceremony. On 19 September 1993 in *Gyanshalaka* , Motilala Chhajed wrote about this issue. According to him, a majority of Jains find it difficult to make ends meet. And, like other communities in India, they think of girls as ultimately belonging to their in-laws, and boys as the only offspring fit to carry the family name. Very few Jain girls get educated and are able stand on their own feet. Most of these women have no option but to spend their lives doing housework and having children.

Jain ascetics take advantage of the youth, poverty and lack of education of girls from such families, and slowly influence them to become formal devotees. While the formalisation ceremony is conducted with great pomp, the girls are extremely confused about what any of this even means.

Soon after their induction, the girls start travelling with groups of female Jain ascetics. Tears spring to their own eyes and those of onlookers as they walk barefoot in the harsh sun. Beholden to their religious vows, they travel the length and breadth of the country barefoot, without any protection against rain, wind and sun. Even the most educated women cannot become chief teachers in the Jain ashrams because the entire system is male-dominated. Once they have renounced normal life, it is nearly impossible for these young women to turn back. The only remaining option is to live out the life they have chosen. Wealthy Jains, Jain scholars, even social reformers who claim to take forward the legacy of Maharshi Karve, turn a blind eye to this practice. They do not even think there is anything wrong with this, forget rebelling against the teachers. The rules

of religious practice in these communities are so severe that even essential changes are punished harshly.

Jain ascetics Madhusmitaji and Jayasmitaji visited the United States, on the invitation of Jains in that country, to help spread the faith. There are around sixty thousand Jains in America today. A generation of American-born Jains are now teenagers. These people are afraid of losing their way spiritually due to their increasing wealth. The community is united and keeps in touch through fifty-one religious centres across the country. Madhusmitaji and Jayasmitaji stayed in the US for six months. They visited twenty Jain centres and offered guidance to people in religious thought and action. The Jain community back in India ought to have congratulated them on their good work. However, when they returned to India, they realised they would have to face a great struggle.

It is tough to travel from place to place within America on foot. And even God cannot journey from India to America, and back, on foot. Naturally, the nuns had to fly and use cars during their travels. Because they had violated the religion's stipulation that ascetics travel only on foot, action was taken against them. Even urban, social-reforming (!) Jains agreed that they should not be permitted to stay at any Jain monastery in the country, that no Jain ought to do business with them, and that they should be ostracised from Jain society. There was no recognition of the fact that the ascetics travelled exclusively on foot from the moment they had landed at the Mumbai airport.

The idea that one should not take advantage of improvements in technology is hypocritical and self-deceptive. Which element of Jain philosophy supports this? In fact, the *Uttaradhyayan Sutra* says 'kalkalakam samayare', which means one should behave according to the times.

In Nasik, Advocate Suresh Bhatwara, Advocate Ramesh Bafna and Swarupchand Raka have been raising their voice against the propaganda of the outdated tradition that is passed off as Jain philosophy. They have appealed to the good sense of people in their community.

If this appeal is not heard, there is real danger of religious festivals becoming a way for rich people to showcase their wealth. Wealthy donors step out of their fancy cars at these ceremonies as if they were the gods themselves. Lakhs of people

have eyes only for them. The donors generally leave the moment the rituals are over. They don't even try to interact with the devotees who attend from all over the country. How conducive can such events be to social equality?

The ceremonies are not effective because, no matter how noble the talk, these practice only serve a set of vested interests. Brahmaramappa Patil writes about the anxiety he experiences in a holy place like Shravanabelagola:

> Thankfully this area still belongs to the Jains who originally lived here. But Rajasthani Digambar Jains are considering taking this area over too. They can easily use money to establish their dominance here. Their entry here will destroy the original Jains' valuable hold. These businesspeople know very well how to excommunicate the original inhabitants.
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> One specialty of the original Jains is that they are not traders or businesspeople. Their traditional occupation is agriculture. They reside all over India. But the Rajasthan-Gujarat Digambar minority has taken over the holy places. Disputes over these places have been going on for a hundred years. They will not be solved even now because the only way to solve them is to give control of the holy places to the original inhabitants. Recently, in Shravanabelagola, they issued a pamphlet that said only 'pure' Jains could perform prayers in an upcoming festival. According to them, pure Jains are those who don't practise widow remarriage and inter-caste marriage. These people had even opposed the idea of Prime Minister Indira Gandhi praying here in 1981. The reason is clear.
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> If Shravanabelagola falls under control of these Jains, no Jain castes from South India will be able to worship there. Because according to them, these castes cannot be Jain. The southern people need to be alert and teach these restrictive Jains a lesson.

Does this only indicate an internal tug-of-war? If that is the case, it is best for outsiders to ignore the matter. Such struggles usually exist where there are vested interests. However, we have

also seen how these vested interests hold the concept of virtue and humanity to ransom. The government promotes inter-caste marriage as a solution to a divided society, but here those who marry outside their caste are restricted from performing prayers. The Constitution dictates that widows have all the rights other citizens enjoy, but according to a section of this community, they don't even have the right to pray.

When the morality of religion fades, dry ritual is all that remains. The philosophy of Vardhaman Mahavira prescribes how man should behave in society. There is no doubt that these teachings are valuable, but it is important to recognise when their essence is lost.

Harshad Mehta and Dilip Kothari are both Jains. Everyone knows Harshad Mehta for the scam he orchestrated and the crores of rupees he cheated people out of. Who is Dilip Kothari? He is a big industrialist who is spending forty crores to build a slaughterhouse near Hyderabad. Forty lakh animals will be killed in this facility every year.

All of Jain society erupted. What was this? A slaughterhouse owned by a Jain? Over 350 Jain periodicals are printed in India. Most of these publications took note of this undertaking and opposed it bitterly. Several Jain politicians condemned it. Efforts are on to get Kothari to distance himself from the project, or the community vows to boycott him.

Dilip Kothari, practising a violent trade despite being a Jain? What a sin! But violence is not the only sin according to Jainism —lying, stealing, cheating and accumulating too many possessions are considered equally sinful.

Harshad Mehta committed the triple sins of lying, stealing and accumulation but, surprisingly, none of the people who opposed Kothari spoke against Mehta. Why should this be the case?

The reason is that, today, the faith is represented by a handful of powerful businesspeople. They have made both Jain intellectuals and the ordinary working-class people irrelevant. This group is comprised largely of unproductive traders. They can hardly uphold the principles of truth, moderation or abstinence from theft. The only tenet of the faith they can support is non-violence towards animals (but they cannot afford to agree with Mahatma Gandhi's opinion that property is

violence). This is why they have managed to convince the world that Jainism is about non-violence and vegetarianism. When only this superficial challenge remains, the non-garlic-and-onion-eating Harshad Mehta cannot be considered irreligious. Why then would anyone condemn him?

Mahavira Sanglikar has made these arguments. I know all the counter-arguments, too: everyone doesn't behave like this; you cannot use the example of a few to generalise the whole community; look at your own community and so on and so forth. The question is simple. It is not about accusations or counter accusations, baiting or defending particular religions. It is a question of introspection.

The anti-superstition movement has never worked for or against any particular religion or community. We take offence to harmful practices and superstitions in every religion. We sincerely respect morally motivated religious behaviour. The Jain community is closer-knit with deeper bonds than other communities, and being more responsible in this sense, it will naturally be scrutinised first. More importantly, there are people within the Jain community who are trying to rebuild a virtuous form of Jainism, but they are getting incredibly little support; in fact, they are being belittled. At a time like this, the anti-superstition movement, which believes in stringent but useful analysis of religion, should back them. This is what we are attempting to do.

Auctions of God-status, the sale of funeral rites, huge temples, pouring milk and ghee over idols—did Mahavira intend for any of this to happen? Is renunciation sometimes forced on people? Is it impossible for such people to return to normal life with dignity, if they cannot keep up the ascetic life? Does the ban on ascetics travelling abroad signify a reluctance to change with the times? Opposition to widow remarriage, the control of rich people over religion, the silence about Harshad Mehta—which of these things is truly Jain? If common devotees are beginning to feel that instead of simple ascetics exercising control over prosperous businesspeople, the opposite is true, then this a matter of concern because it is beneficial for neither the religion nor its teachers.

Don't you think that everyone benefits when the voice of reason grows stronger and is heard from every direction?

The social revolution must continue

Dr Shankar Deokar is a Maratha youth who belongs to a high sub-caste from Satara. In this community, widow remarriage is still banned. Forget prospective grooms, even the widow's family, not to mention the widow herself, thinks remarriage is wrong, unholy, irreputable and damaging to their image. The idea itself is staunchly opposed, let alone its practice.

Dr Deokar is a member of the anti-superstition movement. He believes in change and acts on his beliefs. He decided to break this tradition, beginning with himself. Despite very strong opposition, he married Savita Nimbalkar, a Maratha widow and mother, in 1993. Thus, he set off a social revolution.

Times are changing rapidly. Old social values and their supporting religious norms have become outdated, but in most cases people's minds are slow to change. Traditions still cling to them, and so there is tension between today's social needs and several old, meaningless, exploitative practices. Instead of trying to resolve this tension, people tend to ignore it.

No matter why a woman has been widowed, she is even today called names that blame her for her bad fortune. During celebrations she is kept hidden from view. The mere presence or glimpse of a widow is believed to bring bad luck. Mahatma Phule worked tirelessly so that widows as well as women abandoned by their husbands could be allowed to remarry. Shahu Maharaj passed a law for widow remarriage in 1917. He was ready to get his own daughter-in-law married again with her consent if his son died an untimely death. Many castes do not forbid widow remarriage today. Why does the Maratha community oppose it, despite claiming to be the heirs of Shahu Maharaj and Mahatma Phule?

A young Maratha woman becomes widowed for no fault of her own. Sometimes her husband dies in an accident, sometimes in war. Sometimes he dies of addiction or of illness. The woman's life is turned upside down. Her dreams turn to ashes. A renunciation-like state is forced on her with no regard to her youth, her rights or her dreams. She is forbidden from leaving the house except in cases of extreme need. She is not allowed to laugh or giggle. Talking to men, under any circumstance, is frowned upon. It is considered a sin to educate her so that she may stand on her own feet. She has to live the rest of her life

under the watchful eyes of her family at home. And it is not as if her family members are at peace. Her parents are sad and anxious because their daughter lost an opportunity to have a normal life at such an early age. Her in-laws are worried that she may bring the family name to shame, and are also annoyed that they have to deal with an unlucky woman for the rest of their days. Both sides of the family live in anxiety. This affects mental health as well as material progress.

How does such an unjust tradition survive even today? One of the main reasons for the injustice meted out to women in Indian society is women's ignorance. If women are not educated and knowledgeable, they will not realise the gravity of the injustice they face. Do we give priority to the education of girls? The Maratha community needs to introspect and answer this question. Girls are married off early. Naturally, their education ends there. They are never given the opportunity to become economically self-reliant. They cannot even think of making decisions independently. How, then, can they derive the enormous mental strength needed to break this vicious circle? Of course, this situation is prevalent in other religious communities as well.

But the problem won't be solved by education alone. The idea that the husband is God, that he is everything for a woman, is strong even today. Even highly educated men and women believe widow remarriage is unholy and immoral. These values are inculcated in childhood. The remarriage of a widow is considered a devaluation of the family's status, and even the educated class is not inclined to rethink this. Many women are given to fatalistic thinking. They believe their widowhood is the consequence of sinning in a previous birth, or the whims of the gods. This attitude of mental slavery is hammered into them for generations. This is why, when you broach the topic of remarriage with widows, they often threaten to slap you. Such attitudes strengthen this outdated tradition.

The Maratha community takes great pride in the fact that their widows renounce the pleasures of normal life and uphold religion, that they express their loyalty to their late husbands by staying alone all their lives. These things are frequently related to false notions of family prestige and noble lineage. Even after hundreds of years of such gross injustice, the common Maratha

man does not bother to raise his voice against the practice. When the family of one of our members found out that he had quietly made arrangements for his widowed sister's remarriage, he was thrown out of the house. And several Maratha politicians have expressed (fake) regret to me that while the practice is indeed harmful to women, they can't do anything because society won't accept such changes.

If there is a thing such as the pride of the clan, why does it depend solely on the sacrifices made by women? Why aren't men forbidden from remarrying? Don't the restrictions placed on widows have less to do with holiness than with the duplicity of a culture of male dominance? Does virtue born of enforced restriction really mean anything?

In the nineteenth century, this evil tradition took over the Brahmin community again. This community had shown some improvement with the reforms of Agarkar, Mahatma Phule and Maharshi Karve. Those influenced by them insisted on education and distanced themselves from tradition. This eventually had an impact on the larger community. In Jain, Mali, Gurav and other communities, widow remarriage wasn't allowed earlier. But they have kept abreast of the changing times and transformed their customs. When times and contexts change, social needs and problems shift. Those who keep up also move ahead and become successful. We are happy to see that young Maratha people are thinking about these issues, but there is still hardly any social support when it comes to implementing change.

A few years ago, I had arranged the wedding of a widowed Maratha teacher. A lot of bitterness and anger was expressed about this incident. But we were able to dampen the opposition because we also had the support of respected members of the community. Dr Deokar had tried to change the minds of his people for four years, but the opposition did not die down. Even a few days before the wedding, he was told that an appropriate bride would be found for him immediately if he broke it off. This was accompanied by threats such as, 'We won't let you step into the village', 'You won't be able to set foot in the temple' and so on. No one from his family attended the wedding. The good news is that the opposition is mellowing down now. But it ought to be replaced by praise.

The job of the anti-superstition movement is to stand against

blind traditions, rituals and customs, irrespective of the caste or religion that practise these. But caste is a reality in our society, and certain superstition-based practices come with caste. The concerned group rarely tolerates a person from another community speaking their mind about these beliefs and customs. The Maratha community is a large and influential one. This makes it likely that other communities will blindly follow their example. At a time like this, it becomes doubly important for the Maratha community to bear the responsibility of carrying forward the legacy of our social reformers. We noticed a peculiar phenomenon while advocating for widow remarriage. Old people are usually opposed to any kind of change, but old widows were ardently in support of widows remarrying. This was clearly a reaction born of lifelong misery. In short, we have support for (the concept of) widow remarriage from many quarters.

Given all this, these marriages are undoubtedly the first step in a social revolution. Our only regret is that it is being taken a hundred years too late. The anti-superstition movement will strive to keep this reform alive. What is needed is your wholehearted support and participation.

If you are brave

A famous school in Pune organised a mega-Satyanarayana puja on the occasion of its diamond jubilee. 'Voluntary' donations were collected from parents.

We registered our dissent. Certainly, if the school administrators, teachers and students wanted to organise Satyanarayana prayers at their individual homes, they were free to do so. Indeed, they had that right. But what was the need for its public display and practice?

Our objection was driven by a second, more important concern. Why introduce a tale full of miracles like the Satyanarayana story into an educational space? The narrative openly proclaims that Brahmins come from Brahma's mouth, Kshatriyas from his arm, Vaishyas from his thigh and Shudras from his feet. Were these ideas not outdated at best? Gadge Maharaj's criticism of this verse was severe.

We organised a protest opposite the venue of the puja. We even installed a box that said, 'Speak out'. We offered paper and

a pen to everyone who walked past the altar and invited them to put their opinion in the box.

The box soon filled up with bouquets and brickbats. The surprising part was that every negative comment said the same things:

'Why do you only talk about Hindu superstitions? Look at the Muslims sometimes!'

'You speak about animal sacrifices during Hindu pilgrimages but what about the goat sacrifices during Eid? Why are you silent about that?'

'You talk so much about the Puranas, but have you said one word about the Quran?'

'Hindus are silent sufferers. If you're brave, talk about Muslims and then see what happens!'

It was the same response that we keep hearing all over Maharashtra—the accusation that we only criticise Hindu superstitions. However, the truth is that this is a misconception, one that is maliciously spread to counteract the success of the movement.

In simple words, we see superstition as the black market of faith. Our opposition is to black markets, whether they are Hindu, Muslim, Sikh or Christian.

And how many examples can we provide as proof of impartiality?

Near Indarpur in Pune district, Dilawal Sheikh used to tie up and beat 'possessed' people. We put a stop to this practice and also procured a written apology from him.

In a village called Katgun in Satara district, spells were being peddled for use on Moharram to cure snakebite. We stopped this practice.

In Nandani near Sangli, Gundu Sheikh used to sell a purported medicine for rabies. We filed a case against him.

In Junnar, Baba Inamdar used to say, 'Come stand in front of me. I'll cast a spell and make you vomit blood.' I went and stood in front of him. There were twenty-five other activists with me, also willing to have spells cast on them.

We got the police to use the Magic Drugs and Remedies Act for the first time while arresting Mumbra's Qadri Baba who promised to cast and nullify spells for ₹ 5,000 each.

A TV programme once featured the miracle of the dargah of

Khedshivapur where the chant of Karamali Darvesh allowed people to roll a huge stone uphill by lightly touching it. We went to the dargah and exposed the truth.

We proved that the 'medicine for all ills' that Musababa Sheikh was selling right next to Mahatma Phule's house was actually tiger urine from the zoo. He had to wrap up business.

We marched against missionaries from Switzerland who claimed that prayer would enable the mute to speak, the crippled to walk and the blind to see.

Among new Buddhists in the Jawali and Gujaware villages in Satara district, there was a strange custom wherein people would run towards the stone walls of the temple and crash their head against them. We worked very patiently with the community, risking their displeasure to stop that practice.

We registered our dissent towards the wasteful and extravagant Kalpadrumavidhan festival organised by the Jain community with a hunger strike.

All these acts of protest express our anti-superstition stance. But our movement has another important aspect.

About 80 per cent of this country's people are Hindu. Naturally, 80 per cent of the instances of superstition that come to the movement's notice are Hindu, and 80 per cent of the activists, too, are Hindu. What is our society like? It is fragmented into innumerable castes and communities, and if someone from one caste speaks about the practices of another, eyebrows are raised. Criticism across the religious divide is even more complicated. These are practical and social considerations that the movement has to deal with. Naturally, it will rail more against Hindu superstitions.

But there is another, more important, point. Islam and Christianity are relatively new religions. Each has one God, one Prophet, and one holy book. What is known today as the Hindu religion is much older. It has many holy texts, prophets and preachers, and countless gods. This creates fertile ground for a bountiful harvest of superstition. But that's not all. While superstition exists in this religion, so does the tradition of bravely standing against them. Charvaka asked thousands of years ago how if food from the basement couldn't automatically reach him on the ground floor, food from a yajna could reach God in the sky. Gautama Buddha asked 2,500 years ago: 'How can your

Almighty God watch children being born blind and getting burnt accidentally? If this is a result of sins in a past life, why can't your all-powerful God change the child's destiny?' In Maharashtra, Lokhitwati Gopi Hari Deshmukh, Mahatma Jyotiba Phule, Agarkar, Rajarshi Shahu Maharaj, Vitthal Ramji Shinde, Savarkar, Dr Babasaheb Ambedkar and Gadge Maharaj unleashed a flood of criticism against superstition in Hinduism. V.D. Savarkar asked bluntly: 'If a cow contains 33 crore gods in her belly, does a farmer who beats and shoos her for eating good crop kill a few hundred gods?'

All that the anti-superstition movement does in Maharashtra is try to carry forward this legacy of reform to the best of our abilities. However, the critics of the movement have a different concern. They ask: if you eradicate all the superstitions of the Hindu community and leave alone all the Muslim superstitions, the Muslims will remain bitter and aggressive because of their beliefs. Meanwhile, we will become weak and pacifist. What will happen if there is a face-off?

Where does the belief that people become abler because of superstitions come from, if not ignorance and a sense of inferiority? Actually, the crucial question to ask is: is the work of the anti-superstition movement beneficial or harmful? If it is beneficial, it should be a good thing no matter which community it affects. And if it is harmful, it must not impact anyone: neither Hindus nor Muslims.

Opposing superstition entails opposing exploitation, outdated customs and traditions, and the misdirection and fraud that result from these. When someone throws dust into people's eyes and takes advantage of their faith or fear, they have no caste, clan or religion. The truth-seeking that Phule and Ambedkar advocate opposes this.

Compassion rather than anger; belonging rather than belittling

Different people often bring up the same issue while speaking to me: 'Dabholkar, it's good that you are saying all this intellectual stuff now. But see what happens when something goes seriously wrong in your life!'

They are right. Will it be the case that even after a great

accident or misfortune of some kind, I will not bend, I will not break and I will not fall prey to superstition? That remains to be seen, but until it happens, it is scientific to assume that I will not, in fact, succumb.

Vijay Tendulkar once said to me, 'Narendra, your work is good. But don't you think that people become superstitious out of need?'

I am a member of the movement. I do not believe that anything in the world is caused by divine influence. I believe that people should think about their problems rationally and act in the same manner to solve them.

But this is not easy at all. For one, people don't work solely on logic. Rational thinking is but one of the faculties of the human mind. A personality is composed of intelligence, emotion, thoughts and imagination.

Secondly, in some situations people are motivated by helplessness or desperation. And they use certain beliefs and misconceptions as defence mechanisms.

Suppose it is a moonless night, and a person has to go somewhere urgently. The problem is that she has to walk through a graveyard to get there. Collapsing, fleeing or delaying the journey are not options. So the person finds a way. She crosses the graveyard, chanting the name of God. Why does she use the superstitious notion that ghosts exist and chanting the name of God keeps them away on this occasion? So that she can get her work done, keep a level head and most of all, to absorb the shock of her fright. So, superstitions are often shock-absorbers that people carry around so that they won't be taken unawares. They try to protect themselves from the shocks of fear, grief or unexpected hurdles and happenings.

> Someone's son is unexpectedly diagnosed with cancer.
> Someone faces a huge loss in their business.
> Success comes just within one's grasp and then disappears.

When such things happen, feelings trump thought. Invisible causes and solutions are sought, pursued.

The parents conclude that cancer afflicted their son because

he did not visit the family temple after his wedding. The businessman decides the slump in his performance is because of a vastu shanti not being performed in the office building. Success eludes one's grasp because a Satyanarayana puja was not conducted.

And then, naturally, an offering of silver is made in the family temple. A grand vastu shanti is done. A mega Satyanarayana ceremony is organised.

Many shocks that people face today arise from uncertain social conditions. Everyone faces problems at work or in their marriages, with housing, education or health. But one has to keep on living, so they seek refuge somewhere. So they pick their shock-absorbers from a range of options: Siddhivinayak, Gurucharitra, astrology, spells, holy men or reincarnation.

In reality, it is easy to understand that an incident did not take place due to divine displeasure. It is also not tough to identify the actual reason for the incident. What is tough is the changing of one's mindset—yet, that is the only appropriate and correct thing to do.

But family and society exert pressures that discourage such analysis. And instead of choosing the long and arduous path of action, we pick the shortcut of superstition. People are afraid of breaking down before they get to the end of the long route.

If such superstitions are disruptive and harmful, they need to be heavily opposed for the good of the people. Even if they are not, we need to ensure that they don't dull people's good sense. What if the person who chants the name of God while crossing the graveyard starts chanting it every time she crosses the road, climbs into the bus or enters her boss's cabin? This would mean that she has fallen prey to superstition. She has lost the balance between intelligence and emotion. We must be vigilant and vocal about the need to maintain this balance.

As I mentioned before, many people use superstition as a form of self-defence, out of anxiety, grief and helplessness. Everyone grows up with some values that are taught to them at home and other social spaces outside. Some of these values don't make any sense, but while going through rough patches we tend to fall back on these values—and the rituals that go with them—for support. Even when we intellectually agree that these beliefs or practices are hollow, we cannot always stop ourselves.

This is where the humanitarian aspect of the movement comes into play. A rational person must know where to draw the line between deriving support and taking complete refuge. People rarely realise when they move from support to refuge and, eventually, mental slavery. This is why we need to be alert. The true work of the movement is to oppose notions that don't make sense and replace them with rational values and action.

While doing this work, it will not do to get angry at people, or make fun of them for being stupid. We need to constantly and empathetically engage with people. The road is long but it is the right path. Ultimately, our struggle is to change people in society. And that requires compassion rather than anger; belonging rather than belittling.